



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

03/25/2020

**Kit Components**

| Product code | Description |
|--------------|-------------|
|--------------|-------------|

|                          |                                       |
|--------------------------|---------------------------------------|
| <b>D6400 &amp; D6410</b> | <b>Quick-16S NGS Library Prep Kit</b> |
|--------------------------|---------------------------------------|

Components:

|                          |  |
|--------------------------|--|
| D6400-1-1, D6400-1-200   | Quick-16S qPCR Premix                                |
| D6405-1-40, D6405-1-100  | Quick-16S Primer Set (V1-V2)                         |
| D6405-2-40, D6405-2-100  | Quick-16S Primer Set (V3-V4)                         |
| D4302-5-1, D4302-5-3     | ZymoBIOMICS DNase/RNase Free Water                   |
| D6307                    | ZymoBIOMICS Microbial Community DNA Standard (50 ng) |
| D6400-2-25 & D6400-2-100 | Reaction Clean-up Solution                           |
| D6400-ZA501 to -ZA508    | Index Primer Set A & Index Primer Set Z              |
| D6400-5-60A,B,C,D        | Fluorescence Standards Set                           |
| D4084-2-1.5, D4084-2-30  | Select-a-Size MagBead Concentrate                    |
| D4084-3-1, D4084-3-10    | Select-a-Size MagBead Buffer                         |
| D4003-2-S                | DNA Wash Buffer (ethanol added)                      |



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**1 Identification**

- **Product identifier**
- **Trade name:** *Quick-16S qPCR Premix*
- **Article number:** D6400-1-1, D6400-1-200, D6400-1-500
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

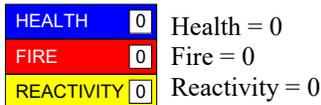
**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.



## Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: **Quick-16S qPCR Premix**

(Contd. of page 1)

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

(Contd. on page 3)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Quick-16S qPCR Premix

(Contd. of page 2)

Protective Action Criteria for Chemicals

PAC-1:

None of the ingredients is listed.

PAC-2:

None of the ingredients is listed.

PAC-3:

None of the ingredients is listed.

7 Handling and storage

Handling:

Precautions for safe handling No special measures required.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

Specific end use(s) Laboratory reagent

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Quick-16S qPCR Premix

(Contd. of page 3)

- Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

- Form: Liquid
Color: No information available
Odor: No information available
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

- Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

- Lower: Not Applicable
Upper: Not Applicable

Vapor pressure: Not determined.

- Density: Not determined.
Relative density: Not determined.
Vapor density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

- Dynamic: Not determined.
Kinematic: Not determined.

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Quick-16S qPCR Premix

(Contd. of page 4)

Table with 2 columns: Property (Solvent content, VOC content, Solids content, Other information) and Value (0.00 %, 0.0 g/l / 0.00 lb/gal, 0.0 %, No further relevant information available).

10 Stability and reactivity

- Reactivity, Chemical stability, Thermal decomposition / conditions to be avoided, Possibility of hazardous reactions, Conditions to avoid, Incompatible materials, Hazardous decomposition products.

11 Toxicological information

- Information on toxicological effects, Acute toxicity, Primary irritant effect (on the skin, on the eye), Sensitization, Additional toxicological information.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- Toxicity, Aquatic toxicity, Persistence and degradability.

(Contd. on page 6)



Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Quick-16S qPCR Premix

(Contd. of page 5)

- Behavior in environmental systems: Bioaccumulative potential No further relevant information available. Mobility in soil No further relevant information available. Additional ecological information: General notes: Not known to be hazardous to water. Results of PBT and vPvB assessment: PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods: Recommendation: Smaller quantities can be disposed of with household waste. Uncleaned packagings: Recommendation: Dispose of container in accordance with local/regional/national and international recommendations. Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Table with 2 columns: Description and Regulation status. Rows include UN-Number, DOT, ADN, IMDG, IATA; UN proper shipping name; Transport hazard class(es); Packing group; Environmental hazards; Special precautions for user; Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code; UN Model Regulation.

(Contd. on page 7)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Quick-16S qPCR Premix**

(Contd. of page 6)

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

None of the ingredients is listed.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:**

Zymo Research Corp.

Safety Department

(Contd. on page 8)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 8/8

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Quick-16S qPCR Premix**

(Contd. of page 7)

17062 Murphy Ave.

Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

· **Contact:** sds@zymoresearch.com

· **Date of preparation / last revision** 03/25/2020 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

US



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**1 Identification**

- **Product identifier**
- **Trade name:** *Quick-16S Primer Set (V1-V2)*
- **Article number:** D6405-1-40, D6405-1-100, D6405-1-400
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.



## Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: **Quick-16S Primer Set (V1-V2)**

(Contd. of page 1)

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

(Contd. on page 3)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Quick-16S Primer Set (V1-V2)

(Contd. of page 2)

Protective Action Criteria for Chemicals

PAC-1:

None of the ingredients is listed.

PAC-2:

None of the ingredients is listed.

PAC-3:

None of the ingredients is listed.

7 Handling and storage

Handling:

Precautions for safe handling No special measures required.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

Specific end use(s) Laboratory reagent

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Quick-16S Primer Set (V1-V2)

(Contd. of page 3)

- Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

- Form: Liquid
Color: Colorless
Odor: No information available
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

- Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

- Lower: Not Applicable
Upper: Not Applicable

Vapor pressure: Not determined.

- Density: Not determined.
Relative density: Not determined.
Vapor density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

- Dynamic: Not determined.
Kinematic: Not determined.

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Quick-16S Primer Set (V1-V2)

(Contd. of page 4)

Table with 2 columns: Property (Solvent content, VOC content, Solids content, Other information) and Value (0.00 %, 0.0 g/l / 0.00 lb/gal, 0.0 %, No further relevant information available).

10 Stability and reactivity

- Reactivity, Chemical stability, Thermal decomposition / conditions to be avoided, Possibility of hazardous reactions, Conditions to avoid, Incompatible materials, Hazardous decomposition products.

11 Toxicological information

- Information on toxicological effects, Acute toxicity, Primary irritant effect (on the skin, on the eye), Sensitization, Additional toxicological information.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- Toxicity, Aquatic toxicity, Persistence and degradability.

(Contd. on page 6)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Quick-16S Primer Set (V1-V2)

(Contd. of page 5)

- Behavior in environmental systems:
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes: Not hazardous for water.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
Recommendation: Smaller quantities can be disposed of with household waste.
Uncleaned packagings:
Recommendation:
Dispose of container in accordance with local/regional/national and international recommendations.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Table with 2 columns: Description and Regulation status. Rows include UN-Number, DOT, ADN, IMDG, IATA; UN proper shipping name; Transport hazard class(es); Packing group; Environmental hazards; Special precautions for user; Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code; UN Model Regulation.

(Contd. on page 7)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: **Quick-16S Primer Set (V1-V2)**

(Contd. of page 6)

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

None of the ingredients is listed.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:**

Zymo Research Corp.

Safety Department

(Contd. on page 8)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 8/8

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Quick-16S Primer Set (V1-V2)**

(Contd. of page 7)

17062 Murphy Ave.

Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

· **Contact:** sds@zymoresearch.com

· **Date of preparation / last revision** 03/25/2020 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

US



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/02/2018

**1 Identification**

- **Product identifier**
- **Trade name:** *Quick-16S Primer Set (V3-V4)*
- **Article number:** D6405-2-40, D6405-2-100, D6405-2-400
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/02/2018

Trade name: **Quick-16S Primer Set (V3-V4)**

(Contd. of page 1)

**3 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**4 First-aid measures**

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

(Contd. on page 3)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/02/2018

Trade name: Quick-16S Primer Set (V3-V4)

(Contd. of page 2)

Protective Action Criteria for Chemicals

PAC-1:

None of the ingredients is listed.

PAC-2:

None of the ingredients is listed.

PAC-3:

None of the ingredients is listed.

7 Handling and storage

Handling:

- Precautions for safe handling: No special measures required.
Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

- Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.
Specific end use(s): Laboratory reagent

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
Control parameters
Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

- Personal protective equipment:
General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
Breathing equipment: Not required.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/02/2018

**Trade name: Quick-16S Primer Set (V3-V4)**

(Contd. of page 3)

- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.

**9 Physical and chemical properties**

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

- **Form:** Liquid
- **Color:** Colorless
- **Odor:** No information available
- **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

- **Lower:** Not Applicable
- **Upper:** Not Applicable

· **Vapor pressure:** Not determined.

- **Density:** Not determined.
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

· **Water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

- **Dynamic:** Not determined.
- **Kinematic:** Not determined.

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/02/2018

Trade name: Quick-16S Primer Set (V3-V4)

(Contd. of page 4)

Table with 2 columns: Property (Solvent content, VOC content, Solids content, Other information) and Value (0.00 %, 0.0 g/l / 0.00 lb/gal, 0.0 %, No further relevant information available).

10 Stability and reactivity

- Reactivity, Chemical stability, Thermal decomposition / conditions to be avoided, Possibility of hazardous reactions, Conditions to avoid, Incompatible materials, Hazardous decomposition products.

11 Toxicological information

- Information on toxicological effects, Acute toxicity, Primary irritant effect (on the skin, on the eye), Sensitization, Additional toxicological information.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- Toxicity, Aquatic toxicity, Persistence and degradability.

(Contd. on page 6)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/02/2018

Trade name: Quick-16S Primer Set (V3-V4)

(Contd. of page 5)

- Behavior in environmental systems:
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes: Not hazardous for water.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
Recommendation: Smaller quantities can be disposed of with household waste.
Uncleaned packagings:
Recommendation:
Dispose of container in accordance with local/regional/national and international recommendations.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Table with 2 columns: Description and Regulation Status. Rows include UN-Number, UN proper shipping name, Transport hazard class(es), Packing group, Environmental hazards, Special precautions for user, Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code, and UN Model Regulation.

(Contd. on page 7)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/02/2018

Trade name: Quick-16S Primer Set (V3-V4)

(Contd. of page 6)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

None of the ingredients is listed.

Hazardous Air Pollutants

None of the ingredients is listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

GHS label elements Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS:

Zymo Research Corp.

Safety Department

(Contd. on page 8)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 8/8

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 03/25/2020

Reviewed on 05/02/2018

**Trade name: Quick-16S Primer Set (V3-V4)**

(Contd. of page 7)

17062 Murphy Ave.

Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

· **Contact:** sds@zymoresearch.com

· **Date of preparation / last revision** 03/25/2020 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

US



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 06/20/2016

**1 Identification**

- **Product identifier**
- **Trade name:** ZymoBIOMICS DNase/RNase Free Water
- **Article number:** D4302-5-1, D4302-5-3, D4302-5-10, D4032-5-30, D4032-5-50
- **CAS Number:**  
7732-18-5
- **EC number:**  
231-791-2
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

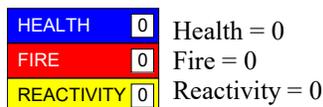
**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The substance is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 2)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 06/20/2016

**Trade name: ZymoBIOMICS DNase/RNase Free Water**

· **vPvB:** Not applicable.

(Contd. of page 1)

**3 Composition/information on ingredients**

- **Chemical characterization: Substances**
- **CAS No. Description**  
7732-18-5 water, distilled, conductivity or of similar purity
- **Identification number(s)**
- **EC number:** 231-791-2

**4 First-aid measures**

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.  
Rinse opened eye for several minutes under running water.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

(Contd. on page 3)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 06/20/2016

**Trade name: ZymoBIOMICS DNase/RNase Free Water**

(Contd. of page 2)

**· Protective Action Criteria for Chemicals**

**· PAC-1:**

Substance is not listed.

**· PAC-2:**

Substance is not listed.

**· PAC-3:**

Substance is not listed.

**7 Handling and storage**

**· Handling:**

**· Precautions for safe handling** No special measures required.

**· Information about protection against explosions and fires:** No special measures required.

**· Conditions for safe storage, including any incompatibilities**

**· Storage:**

**· Requirements to be met by storerooms and receptacles:** No special requirements.

**· Information about storage in one common storage facility:** Not required.

**· Further information about storage conditions:** None.

**· Specific end use(s)** Laboratory reagent

**8 Exposure controls/personal protection**

**· Additional information about design of technical systems:** No further data; see item 7.

**· Control parameters**

**· Components with limit values that require monitoring at the workplace:** Not required.

**· Additional information:** The lists that were valid during the creation were used as basis.

**· Exposure controls**

**· Personal protective equipment:**

**· General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

**· Breathing equipment:** Not required.

**· Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**· Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**· Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 4)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 06/20/2016

Trade name: ZymoBIOMICS DNase/RNase Free Water

(Contd. of page 3)

Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid
Color: Clear
Odor: Odorless
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: 0 °C (32 °F)
Boiling point/Boiling range: 100 °C (212 °F)

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: Not Applicable
Upper: Not Applicable

Vapor pressure at 20 °C (68 °F): 23 hPa (17.3 mm Hg)

Density at 20 °C (68 °F): 1 g/cm³ (8.345 lbs/gal)

Relative density: Not determined.

Vapor density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic at 20 °C (68 °F): 0.952 mPas
Kinematic: Not determined.
Water: 100.0 %
VOC content: 0.00 %
0.0 g/l / 0.00 lb/gal

Solids content: 0.0 %

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 06/20/2016

Trade name: ZymoBIOMICS DNase/RNase Free Water

(Contd. of page 4)

Other information No further relevant information available.

10 Stability and reactivity

- Reactivity: No further relevant information available.
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
Acute toxicity:
Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The substance is not subject to classification.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

- Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Behavior in environmental systems:
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Additional ecological information:
General notes: Not hazardous for water.

(Contd. on page 6)



Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 06/20/2016

Trade name: ZymoBIOMICS DNase/RNase Free Water

(Contd. of page 5)

- Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
Recommendation: Smaller quantities can be disposed of with household waste.
Uncleaned packagings:
Recommendation: Dispose of container in accordance with local/regional/national and international recommendations.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Table with 2 columns: Hazard/Requirement and Status. Rows include UN-Number, UN proper shipping name, Transport hazard class(es), Packing group, Environmental hazards, Special precautions for user, Transport in bulk, and UN Model Regulation.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara

Section 355 (extremely hazardous substances): Substance is not listed.

(Contd. on page 7)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 06/20/2016

Trade name: ZymoBIOMICS DNase/RNase Free Water

(Contd. of page 6)

Section 313 (Specific toxic chemical listings):

Substance is not listed.

TSCA (Toxic Substances Control Act):

ACTIVE

Hazardous Air Pollutants

Substance is not listed.

Proposition 65

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

GHS label elements Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS:

Zymo Research Corp.

Safety Department

17062 Murphy Ave.

Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

Contact: sds@zymoresearch.com

Date of preparation / last revision 03/25/2020 / -

(Contd. on page 8)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 8/8

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 03/25/2020

Reviewed on 06/20/2016

**Trade name: ZymoBIOMICS DNase/RNase Free Water**

(Contd. of page 7)

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit

US



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/25/2020

**1 Identification**

- **Product identifier**
- **Trade name:** ZymoBIOMICS Microbial Community DNA Standard (50 ng)
- **Article number:** D6307
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.



## Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/25/2020

Trade name: ZymoBIOMICS Microbial Community DNA Standard (50 ng)

(Contd. of page 1)

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.  
Rinse opened eye for several minutes under running water.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

(Contd. on page 3)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/25/2020

Trade name: ZymoBIOMICS Microbial Community DNA Standard (50 ng)

(Contd. of page 2)

Protective Action Criteria for Chemicals

PAC-1:

Table with 3 columns: CAS number, chemical name, and concentration. Rows include CAS: 1185-53-1 for 2-amino-2-(hydroxymethyl)propane-1,3-diolhydrochloride at 12 mg/m³ and CAS: 6381-92-6 for Edetate Disodium, Dihydrate at 30 mg/m³.

PAC-2:

Table with 3 columns: CAS number, chemical name, and concentration. Rows include CAS: 1185-53-1 for 2-amino-2-(hydroxymethyl)propane-1,3-diolhydrochloride at 130 mg/m³ and CAS: 6381-92-6 for Edetate Disodium, Dihydrate at 330 mg/m³.

PAC-3:

Table with 3 columns: CAS number, chemical name, and concentration. Rows include CAS: 1185-53-1 for 2-amino-2-(hydroxymethyl)propane-1,3-diolhydrochloride at 790 mg/m³ and CAS: 6381-92-6 for Edetate Disodium, Dihydrate at 2,000 mg/m³.

7 Handling and storage

- Handling:
Precautions for safe handling: No special measures required.
Information about protection against explosions and fires: No special measures required.
Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.
Specific end use(s): Laboratory reagent

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
Control parameters
Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: The lists that were valid during the creation were used as basis.
Exposure controls
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.
Breathing equipment: Not required.
Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 4)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/25/2020

Trade name: ZymoBIOMICS Microbial Community DNA Standard (50 ng)

(Contd. of page 3)

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Table with 2 columns: Property (Form, Color, Odor, Odor threshold) and Value (Liquid, Clear, No information available, Not determined).

pH-value: Not determined.

Change in condition

Table with 2 columns: Property (Melting point/Melting range, Boiling point/Boiling range) and Value (Undetermined, Undetermined).

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Table with 2 columns: Property (Lower, Upper) and Value (Not Applicable, Not Applicable).

Vapor pressure: Not determined.

Table with 2 columns: Property (Density, Relative density, Vapor density, Evaporation rate) and Value (Not determined, Not determined, Not determined, Not determined).

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not determined.

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/25/2020

Trade name: ZymoBIOMICS Microbial Community DNA Standard (50 ng)

(Contd. of page 4)

Table with 2 columns: Property (Kinematic, Solvent content, VOC content, Solids content, Other information) and Value (Not determined, 0.00%, 0.0 g/l / 0.00 lb/gal, 2.0%, No further relevant information available).

10 Stability and reactivity

- Reactivity: No further relevant information available.
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
Acute toxicity:
Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories

Table with 2 columns: Agency (IARC, NTP, OSHA-Ca) and Status (None of the ingredients is listed).

12 Ecological information

- Toxicity
Aquatic toxicity: No further relevant information available.

(Contd. on page 6)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/25/2020

Trade name: ZymoBIOMICS Microbial Community DNA Standard (50 ng)

(Contd. of page 5)

- Persistence and degradability No further relevant information available.
· Behavior in environmental systems:
· Bioaccumulative potential No further relevant information available.
· Mobility in soil No further relevant information available.
· Additional ecological information:
· General notes:
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.
· Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
· Recommendation: Smaller quantities can be disposed of with household waste.
· Uncleaned packagings:
· Recommendation:
Dispose of container in accordance with local/regional/national and international recommendations.
· Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Table with 2 columns: Description and Regulation Status. Rows include UN-Number, UN proper shipping name, Transport hazard class(es), Packing group, Environmental hazards, Special precautions for user, Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code, and UN Model Regulation.



Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/25/2020

Trade name: ZymoBIOMICS Microbial Community DNA Standard (50 ng)

(Contd. of page 6)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

CAS: 1185-53-1 | 2-amino-2-(hydroxymethyl)propane-1,3-diolhydrochloride | ACTIVE

· Hazardous Air Pollutants

None of the ingredients is listed.

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements Void

· Hazard pictograms Void

· Signal word Void

· Hazard statements Void

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS:

Zymo Research Corp.
Safety Department

(Contd. on page 8)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 8/8

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 03/25/2020

Reviewed on 03/25/2020

**Trade name: ZymoBIOMICS Microbial Community DNA Standard (50 ng)**

(Contd. of page 7)

17062 Murphy Ave.

Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

· **Contact:** sds@zymoresearch.com

· **Date of preparation / last revision** 03/25/2020 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

US



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**1 Identification**

- **Product identifier**
- **Trade name:** Reaction Clean-up Solution
- **Article number:** D6400-2-25 & D6400-2-100
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

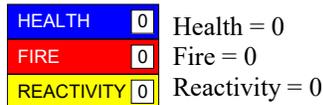
**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Reaction Clean-up Solution**

(Contd. of page 1)

**3 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**4 First-aid measures**

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

(Contd. on page 3)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Reaction Clean-up Solution**

(Contd. of page 2)

**· Protective Action Criteria for Chemicals**

**· PAC-1:**

None of the ingredients is listed.

**· PAC-2:**

None of the ingredients is listed.

**· PAC-3:**

None of the ingredients is listed.

**7 Handling and storage**

**· Handling:**

**· Precautions for safe handling** No special measures required.

**· Information about protection against explosions and fires:** No special measures required.

**· Conditions for safe storage, including any incompatibilities**

**· Storage:**

**· Requirements to be met by storerooms and receptacles:** No special requirements.

**· Information about storage in one common storage facility:** Not required.

**· Further information about storage conditions:** None.

**· Specific end use(s)** Laboratory reagent

**8 Exposure controls/personal protection**

**· Additional information about design of technical systems:** No further data; see item 7.

**· Control parameters**

**· Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**· Additional information:** The lists that were valid during the creation were used as basis.

**· Exposure controls**

**· Personal protective equipment:**

**· General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

**· Breathing equipment:** Not required.

**· Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**· Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Reaction Clean-up Solution

(Contd. of page 3)

- Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

- Form: Liquid
Color: According to product specification
Odor: No information available
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

- Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

- Lower: Not Applicable
Upper: Not Applicable

Vapor pressure: Not determined.

- Density: Not determined.
Relative density: Not determined.
Vapor density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

- Dynamic: Not determined.
Kinematic: Not determined.

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Reaction Clean-up Solution

(Contd. of page 4)

Table with 2 columns: Property (Solvent content, VOC content, Solids content, Other information) and Value (0.00 %, 0.0 g/l / 0.00 lb/gal, 0.0 %, No further relevant information available).

10 Stability and reactivity

- Reactivity, Chemical stability, Thermal decomposition / conditions to be avoided, Possibility of hazardous reactions, Conditions to avoid, Incompatible materials, Hazardous decomposition products.

11 Toxicological information

- Information on toxicological effects, Acute toxicity, Primary irritant effect (on the skin, on the eye), Sensitization, Additional toxicological information.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- Toxicity, Aquatic toxicity, Persistence and degradability.

(Contd. on page 6)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Reaction Clean-up Solution

(Contd. of page 5)

- Behavior in environmental systems:
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes: Not known to be hazardous to water.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
Recommendation: Smaller quantities can be disposed of with household waste.
Uncleaned packagings:
Recommendation:
Dispose of container in accordance with local/regional/national and international recommendations.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Table with 2 columns: Description and Regulation status. Rows include UN-Number, UN proper shipping name, Transport hazard class(es), Packing group, Environmental hazards, Special precautions for user, Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code, and UN Model Regulation.

(Contd. on page 7)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Reaction Clean-up Solution**

(Contd. of page 6)

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

None of the ingredients is listed.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:**

Zymo Research Corp.

Safety Department

(Contd. on page 8)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 8/8

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Reaction Clean-up Solution**

(Contd. of page 7)

17062 Murphy Ave.

Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

· **Contact:** sds@zymoresearch.com

· **Date of preparation / last revision** 03/25/2020 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

US



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**1 Identification**

- **Product identifier**
- **Trade name: Index Primer Set A & Index Primer Set Z**
- **Article number:**  
Index Primer Set A: D6400-ZA501 to D6400-ZA508 & D6400-ZA701 to D6400-ZA712  
Index Primer Set Z: D6410-ZA501 to D6410-ZA504 & D6410-ZA701 to D6410-ZA706
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Index Primer Set A & Index Primer Set Z

(Contd. of page 1)

3 Composition/information on ingredients

- Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.
Dangerous components: Void

4 First-aid measures

- Description of first aid measures
General information: No special measures required.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Do not induce vomiting; immediately call for medical help.
Information for doctor:
Most important symptoms and effects, both acute and delayed No further relevant information available.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.
Advice for firefighters
Protective equipment: Wear protective clothing.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Wear protective clothing.
Environmental precautions: Dilute with plenty of water.
Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
Protective Action Criteria for Chemicals

PAC-1: None of the ingredients is listed.

PAC-2: None of the ingredients is listed.

(Contd. on page 3)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Index Primer Set A & Index Primer Set Z

(Contd. of page 2)

PAC-3:

None of the ingredients is listed.

7 Handling and storage

- Handling:
Precautions for safe handling No special measures required.
Information about protection against explosions and fires: No special measures required.
Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.
Specific end use(s) Laboratory reagent

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
Control parameters
Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: The lists that were valid during the creation were used as basis.
Exposure controls
Personal protective equipment:
General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
Breathing equipment: Not required.
Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Penetration time of glove material The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Goggles recommended during refilling.

(Contd. on page 4)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Index Primer Set A & Index Primer Set Z

(Contd. of page 3)

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid
Color: According to product specification
Odor: No information available
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: Not Applicable
Upper: Not Applicable

Vapor pressure: Not determined.

Density: Not determined.

Relative density: Not determined.

Vapor density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not determined.
Kinematic: Not determined.

Solvent content:

VOC content: 0.00 %
0.0 g/l / 0.00 lb/gl

Solids content: 0.0 %

Other information: No further relevant information available.

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Index Primer Set A & Index Primer Set Z

(Contd. of page 4)

10 Stability and reactivity

- Reactivity No further relevant information available.
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions No dangerous reactions known.
Conditions to avoid No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
Acute toxicity:
Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability No further relevant information available.
Behavior in environmental systems:
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes: Not hazardous for water.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

(Contd. on page 6)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Index Primer Set A & Index Primer Set Z

(Contd. of page 5)

Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
Recommendation: Smaller quantities can be disposed of with household waste.
Uncleaned packagings:
Recommendation: Dispose of container in accordance with local/regional/national and international recommendations.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Table with 2 columns: Regulatory criteria (UN-Number, DOT, ADN, IMDG, IATA, etc.) and Status (not regulated, Not applicable).

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara

Table with 2 columns: Regulatory section (Section 355, Section 313, TSCA) and Status (None of the ingredients is listed).

(Contd. on page 7)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Index Primer Set A & Index Primer Set Z**

(Contd. of page 6)

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:**

Zymo Research Corp.  
Safety Department  
17062 Murphy Ave.  
Irvine, CA 92614  
USA

Phone: 1-949-679-1190 or 1-888-882-9682

· **Contact:** sds@zymoresearch.com

· **Date of preparation / last revision** 03/25/2020 / -

· **Abbreviations and acronyms:**

- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)

(Contd. on page 8)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 8/8

***Safety Data Sheet***  
***acc. to OSHA HCS***

*Printing date 03/25/2020*

*Reviewed on 05/30/2017*

***Trade name: Index Primer Set A & Index Primer Set Z***

VOC: Volatile Organic Compounds (USA, EU)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit

(Contd. of page 7)

US



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**1 Identification**

- **Product identifier**
- **Trade name:** Fluorescence Standards Set
- **Article number:** D6400-5-60A,B,C,D
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Fluorescence Standards Set**

(Contd. of page 1)

**3 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**4 First-aid measures**

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

(Contd. on page 3)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Fluorescence Standards Set

(Contd. of page 2)

Protective Action Criteria for Chemicals

PAC-1:

None of the ingredients is listed.

PAC-2:

None of the ingredients is listed.

PAC-3:

None of the ingredients is listed.

7 Handling and storage

Handling:

- Precautions for safe handling: No special measures required.
Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

- Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.
Specific end use(s): Laboratory reagent

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
Control parameters
Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

- Personal protective equipment:
General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
Breathing equipment: Not required.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Fluorescence Standards Set

(Contd. of page 3)

- Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

- Form: Liquid
Color: According to product specification
Odor: No information available
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

- Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

- Lower: Not Applicable
Upper: Not Applicable

Vapor pressure: Not determined.

- Density: Not determined.
Relative density: Not determined.
Vapor density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

- Dynamic: Not determined.
Kinematic: Not determined.

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Fluorescence Standards Set

(Contd. of page 4)

Table with 2 columns: Property (Solvent content, VOC content, Solids content, Other information) and Value (0.00 %, 0.0 g/l / 0.00 lb/gal, 0.0 %, No further relevant information available).

10 Stability and reactivity

- Reactivity, Chemical stability, Thermal decomposition / conditions to be avoided, Possibility of hazardous reactions, Conditions to avoid, Incompatible materials, Hazardous decomposition products.

11 Toxicological information

- Information on toxicological effects, Acute toxicity, Primary irritant effect (on the skin, on the eye), Sensitization, Additional toxicological information.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- Toxicity, Aquatic toxicity, Persistence and degradability.

(Contd. on page 6)



Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Fluorescence Standards Set

(Contd. of page 5)

- Behavior in environmental systems: Bioaccumulative potential, Mobility in soil, Additional ecological information, General notes, Results of PBT and vPvB assessment, PBT, vPvB, Other adverse effects

13 Disposal considerations

- Waste treatment methods, Recommendation, Uncleaned packagings, Recommendation, Recommended cleansing agent

14 Transport information

Table with 2 columns: Description and Regulation status. Rows include UN-Number, UN proper shipping name, Transport hazard class(es), Packing group, Environmental hazards, Special precautions for user, Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code, and UN Model Regulation.



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 05/30/2017

Trade name: Fluorescence Standards Set

(Contd. of page 6)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara

Section 355 (extremely hazardous substances):
None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):
None of the ingredients is listed.

TSCA (Toxic Substances Control Act):
None of the ingredients is listed.

Hazardous Air Pollutants
None of the ingredients is listed.

Proposition 65

Chemicals known to cause cancer:
None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.

Chemicals known to cause developmental toxicity:
None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)
None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)
None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.

GHS label elements Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS:

Zymo Research Corp.

Safety Department

(Contd. on page 8)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 8/8

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 03/25/2020

Reviewed on 05/30/2017

**Trade name: Fluorescence Standards Set**

(Contd. of page 7)

17062 Murphy Ave.

Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

· **Contact:** sds@zymoresearch.com

· **Date of preparation / last revision** 03/25/2020 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

US



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

**1 Identification**

- **Product identifier**
- **Trade name:** *Select-a-Size MagBead Concentrate*
- **Article number:** D4084-2-1.5, D4084-2-30, D4084-2-300
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

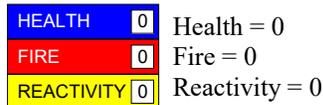
**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.



## Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

**Trade name: Select-a-Size MagBead Concentrate**

(Contd. of page 1)

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

None of the ingredients is listed.

(Contd. on page 3)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

Trade name: Select-a-Size MagBead Concentrate

(Contd. of page 2)

PAC-2:

None of the ingredients is listed.

PAC-3:

None of the ingredients is listed.

7 Handling and storage

- Handling:
Precautions for safe handling No special measures required.
Information about protection against explosions and fires: No special measures required.
Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.
Specific end use(s) Laboratory reagent

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
Control parameters
Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: The lists that were valid during the creation were used as basis.
Exposure controls
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.
Breathing equipment: Not required.
Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 4)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

**Trade name: Select-a-Size MagBead Concentrate**

(Contd. of page 3)

· **Eye protection:** Not required.

**9 Physical and chemical properties**

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

|                          |                          |
|--------------------------|--------------------------|
| · <b>Form:</b>           | Solid                    |
| · <b>Color:</b>          | No information available |
| · <b>Odor:</b>           | No information available |
| · <b>Odor threshold:</b> | Not determined.          |

· **pH-value:** Not applicable.

· **Change in condition**

|                                       |               |
|---------------------------------------|---------------|
| · <b>Melting point/Melting range:</b> | Undetermined. |
| · <b>Boiling point/Boiling range:</b> | Undetermined. |

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

|                 |                |
|-----------------|----------------|
| · <b>Lower:</b> | Not Applicable |
| · <b>Upper:</b> | Not Applicable |

· **Vapor pressure:** Not applicable.

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapor density** Not applicable.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

· **Water:** Insoluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

|                     |                 |
|---------------------|-----------------|
| · <b>Dynamic:</b>   | Not applicable. |
| · <b>Kinematic:</b> | Not applicable. |

· **Solvent content:**

· **VOC content:** 0.00 %

· **Solids content:** 100.0 %

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

Trade name: Select-a-Size MagBead Concentrate

(Contd. of page 4)

Other information No further relevant information available.

10 Stability and reactivity

- Reactivity: No further relevant information available.
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
Acute toxicity:
Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Behavior in environmental systems:
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Additional ecological information:
General notes: Not hazardous for water.

(Contd. on page 6)



Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

Trade name: Select-a-Size MagBead Concentrate

(Contd. of page 5)

- Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
Recommendation: Smaller quantities can be disposed of with household waste.
Uncleaned packagings:
Recommendation: Dispose of container in accordance with local/regional/national and international recommendations.

14 Transport information

Table with 2 columns: Hazard/Regulation and Status. Rows include UN-Number, UN proper shipping name, Transport hazard class(es), Packing group, Environmental hazards, Special precautions for user, Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code, and UN Model Regulation.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara

Section 355 (extremely hazardous substances): None of the ingredients is listed.

Section 313 (Specific toxic chemical listings): None of the ingredients is listed.

(Contd. on page 7)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

Trade name: Select-a-Size MagBead Concentrate

(Contd. of page 6)

TSCA (Toxic Substances Control Act):

None of the ingredients is listed.

Hazardous Air Pollutants

None of the ingredients is listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

GHS label elements Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS:

Zymo Research Corp.
Safety Department
17062 Murphy Ave.
Irvine, CA 92614
USA
Phone: 1-949-679-1190 or 1-888-882-9682

Contact: sds@zymoresearch.com

Date of preparation / last revision 03/25/2020 / -

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation

(Contd. on page 8)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 8/8

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 03/25/2020

Reviewed on 04/26/2019

**Trade name: Select-a-Size MagBead Concentrate**

(Contd. of page 7)

IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit

US



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

**1 Identification**

- **Product identifier**
- **Trade name:** *Select-a-Size MagBead Buffer*
- **Article number:** D4084-3-1, D4084-3-10, D4084-3-50
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

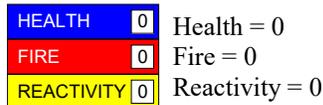
**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

**Trade name: Select-a-Size MagBead Buffer**

(Contd. of page 1)

**3 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**4 First-aid measures**

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

(Contd. on page 3)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

Trade name: Select-a-Size MagBead Buffer

(Contd. of page 2)

- Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Protective Action Criteria for Chemicals

PAC-1:

All components have the value 0.026 mg/m³.

PAC-2:

All components have the value 0.29 mg/m³.

PAC-3:

All components have the value 5.3 mg/m³.

7 Handling and storage

- Handling:
Precautions for safe handling
No special measures required.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Information about protection against explosions and fires: No special measures required.
Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.
Specific end use(s) Laboratory reagent

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
Control parameters
Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: The lists that were valid during the creation were used as basis.
Exposure controls
Personal protective equipment:
General protective and hygienic measures: Keep away from foodstuffs, beverages and feed.
Breathing equipment:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

(Contd. on page 4)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

Trade name: Select-a-Size MagBead Buffer

(Contd. of page 3)

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Table with 2 columns: Property (Form, Color, Odor, Odor threshold) and Value (Liquid, No information available, No information available, Not determined).

pH-value: Not determined.

Change in condition

Table with 2 columns: Property (Melting point/Melting range, Boiling point/Boiling range) and Value (Undetermined, Undetermined).

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Table with 2 columns: Property (Lower, Upper) and Value (Not Applicable, Not Applicable).

Vapor pressure: Not determined.

Table with 2 columns: Property (Density, Relative density, Vapor density, Evaporation rate) and Value (Not determined, Not determined, Not determined, Not determined).

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

Trade name: Select-a-Size MagBead Buffer

(Contd. of page 4)

Table with 2 columns: Property and Value. Rows include Solubility in Water, Partition coefficient, Viscosity (Dynamic and Kinematic), Solvent content (VOC), Solids content, and Other information.

10 Stability and reactivity

- Reactivity: No further relevant information available.
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
Acute toxicity:

Table with 2 columns: Route and LD50. Row 1: Oral LD50 27 mg/kg (rat). Row 2: Dermal LD50 20 mg/kg (rabbit). Includes CAS: 26628-22-8 sodium azide.

- Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
Harmful

(Contd. on page 6)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

Trade name: Select-a-Size MagBead Buffer

(Contd. of page 5)

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity

- Aquatic toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Behavior in environmental systems:
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Additional ecological information:
General notes: Not hazardous for water.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
Recommendation: Smaller quantities can be disposed of with household waste.
Uncleaned packagings:
Recommendation: Dispose of container in accordance with local/regional/national and international recommendations.

14 Transport information

- UN-Number
DOT, ADN, IMDG, IATA not regulated
UN proper shipping name
DOT, ADN, IMDG, IATA not regulated
Transport hazard class(es)
DOT, ADN, IMDG, IATA
Class not regulated

(Contd. on page 7)



Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 04/26/2019

Trade name: Select-a-Size MagBead Buffer

(Contd. of page 6)

Table with 2 columns: Regulatory category and status. Rows include Packing group, DOT, IMDG, IATA, Environmental hazards, Special precautions for user, Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code, and UN Model Regulation.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture Sara

Section 355 (extremely hazardous substances): All ingredients are listed.

Section 313 (Specific toxic chemical listings): All ingredients are listed.

TSCA (Toxic Substances Control Act): All components have the value ACTIVE.

Hazardous Air Pollutants: None of the ingredients is listed.

Proposition 65: Chemicals known to cause cancer: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.

Chemicals known to cause developmental toxicity: None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency): None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH): All components have the value A4.

NIOSH-Ca (National Institute for Occupational Safety and Health): None of the ingredients is listed.

GHS label elements Void

(Contd. on page 8)

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 03/25/2020

Reviewed on 04/26/2019

**Trade name: Select-a-Size MagBead Buffer**

(Contd. of page 7)

- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:**  
Zymo Research Corp.  
Safety Department  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682
- **Contact:** sds@zymoresearch.com
- **Date of preparation / last revision** 03/25/2020 / -
- **Abbreviations and acronyms:**  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/02/2017

## 1 Identification

- **Product identifier**
- **Trade name:** DNA Wash Buffer (ethanol added)
- **Article number:** D4003-2-S
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product Safety Dept.
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS02
- **Signal word** Danger
- **Hazard-determining components of labeling:**  
ethanol
- **Hazard statements**  
Highly flammable liquid and vapor.
- **Precautionary statements**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
In case of fire: Use for extinction: CO2, powder or water spray.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/02/2017

Trade name: DNA Wash Buffer (ethanol added)

(Contd. of page 1)

- Classification system:
NFPA ratings (scale 0 - 4)



- HMIS-ratings (scale 0 - 4)



- Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

Table with 2 columns: CAS: 64-17-5 ethanol, ≤100%

4 First-aid measures

- Description of first aid measures
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Do not induce vomiting; immediately call for medical help.
Information for doctor:
Most important symptoms and effects, both acute and delayed No further relevant information available.
Indication of any immediate medical attention and special treatment needed No further relevant information available.



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/02/2017

**Trade name: DNA Wash Buffer (ethanol added)**

(Contd. of page 2)

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

|  |
|--|
| · <b>PAC-1:</b>                          |
| All components have the value 1,800 ppm. |

|  |
|--|
| · <b>PAC-2:</b>                          |
| All components have the value 3300* ppm. |

|   |
|---|
| · <b>PAC-3:</b>                           |
| All components have the value 15000* ppm. |

**7 Handling and storage**

- **Handling:**
- **Precautions for safe handling**  
No special precautions are necessary if used correctly. Avoid breathing dust, vapor, mist or gas. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.

(Contd. on page 4)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/02/2017

Trade name: DNA Wash Buffer (ethanol added)

(Contd. of page 3)

- Further information about storage conditions:
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Specific end use(s) Laboratory reagent

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
Control parameters

Components with limit values that require monitoring at the workplace:

CAS: 64-17-5 ethanol

Table with 2 columns: PEL, REL, TLV and their corresponding values for ethanol.

Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
Personal protective equipment:
General protective and hygienic measures: Wash hands before breaks and at the end of work.
Breathing equipment: Not required.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

US

(Contd. on page 5)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/02/2017

Trade name: DNA Wash Buffer (ethanol added)

(Contd. of page 4)

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid
Color: Clear
Odor: Alcohol-like
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

Flash point: 13 °C (55.4 °F)

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 425 °C (797 °F)

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

Explosion limits:

Lower: 3.5 Vol %
Upper: 15 Vol %

Vapor pressure at 20 °C (68 °F): 59 hPa (44.3 mm Hg)

Density: Not determined.

Relative density: Not determined.

Vapor density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Solvent content:

Organic solvents: 80.0 %
VOC content: 80.00 %
800.0 g/l / 6.68 lb/gal

Solids content: 0.0 %

(Contd. on page 6)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/02/2017

Trade name: DNA Wash Buffer (ethanol added)

(Contd. of page 5)

Other information No further relevant information available.

10 Stability and reactivity

- Reactivity No further relevant information available.
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions No dangerous reactions known.
Conditions to avoid No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
Acute toxicity:
Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability No further relevant information available.
Behavior in environmental systems:
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

(Contd. on page 7)



Safety Data Sheet acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/02/2017

Trade name: DNA Wash Buffer (ethanol added)

(Contd. of page 6)

- Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
Recommendation: Dispose of contents in accordance with local/regional/national, and international recommendations.
Uncleaned packagings:
Recommendation: Dispose of container in accordance with local/regional/national and international recommendations.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Table with 2 columns: Description and Value. Rows include UN-Number (UN1170), UN proper shipping name (Ethanol solutions), Transport hazard class(es) (3 Flammable liquids), and Packing group (II).

(Contd. on page 8)



Safety Data Sheet
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/02/2017

Trade name: DNA Wash Buffer (ethanol added)

(Contd. of page 7)

Table with 2 columns: Hazard/Information and Description. Rows include Environmental hazards, Special precautions for user, Transport in bulk, Transport/Additional information, IMDG, and UN Model Regulation.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara

Table with 2 columns: Regulatory Section and Description. Rows include Section 355, Section 313, TSCA, Hazardous Air Pollutants, Proposition 65, and Chemicals known to cause cancer/reproductive toxicity.

(Contd. on page 9)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/25/2020

Reviewed on 03/02/2017

**Trade name: DNA Wash Buffer (ethanol added)**

(Contd. of page 8)

**· Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

**· Carcinogenic categories**

**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**· TLV (Threshold Limit Value established by ACGIH)**

All components have the value A3.

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**· GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**· Hazard pictograms** GHS02

**· Signal word** Danger

**· Hazard-determining components of labeling:**

ethanol

**· Hazard statements**

Highly flammable liquid and vapor.

**· Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**· Department issuing SDS:**

Zymo Research Corp.

Safety Department

17062 Murphy Ave.

Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

**· Contact:** sds@zymoresearch.com

**· Date of preparation / last revision** 03/25/2020 / -

(Contd. on page 10)



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple*

Page 10/10

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 03/25/2020

Reviewed on 03/02/2017

**Trade name: DNA Wash Buffer (ethanol added)**

(Contd. of page 9)

**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Flam. Liq. 2: Flammable liquids – Category 2

US