

# SAFETY DATA SHEET

## 1. Identification

Product identifier	n-HEXANE-MTBE 80-20 MIXTURE
Other means of identification	
Product code	2350
Recommended use	professional, scientific and technical activities: other professional, scientific and technical activities
<b>Recommended restrictions</b>	None known.
Manufacturer/Importer/Suppl	lier/Distributor information
Manufacturer	
Company name	GFS Chemicals, Inc.

Company name	GFS Chemicals, Inc.	
Address	P.O. Box 245	
	Powell, OH 43065	
	United States	
Telephone	Phone	740-881-5501
	Toll Free	800-858-9682
	Fax	740-881-5989
Website	www.gfschemicals.com	
E-mail	service@gfschemicals.com	
Emergency phone number	Emergency Assistance	Chemtrec 800-424-9300

## 2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Carcinogenicity	Category 2
	Reproductive toxicity (fertility)	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements



Signal word Hazard statement

Highly flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement Prevention

Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Take off contaminated clothing and wash before reuse.
Storage	Store locked up. Store in a cool, well-ventilated place. Keep container tightly closed.
Disposal	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	None.

# 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
HEXANES	A MIXTURE OF HEXANE ISOMERS AND METHYLCYCLOPENTANE	110-54-3	80
METHYL tert-BUTYL ETHER	TERT-BUTYL METHYL ETHER 2-Methoxy-2-methylpropane MTBE T-BUTYL METHYL ETHER	1634-04-4	20

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures	
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Irritation of nose and throat. May cause respiratory irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
5. Fire-fighting measures	5
Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor.
6. Accidental release me	asures
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.
	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
	Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.
	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Use appropriate containment to avoid environmental contamination.
7. Handling and storage	
Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
	Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

# 8. Exposure controls/personal protection

#### **Occupational exposure limits**

Components	Туре	9	v	alue
HEXANES (CAS 110-54-3)	PEL			800 mg/m3
			5	00 ppm
US. ACGIH Threshold Lin			N	/alue
Components	Туре			
HEXANES (CAS 110-54-3) METHYL tert-BUTYL ETHER	TWA TWA			0 ppm
(CAS 1634-04-4)	IVVA		0	0 ppm
US. NIOSH: Pocket Guid	e to Chemical Hazard	ls		
Components	Туре	9	V	alue
HEXANES (CAS 110-54-3)	TWA			80 mg/m3
			5	0 ppm
iological limit values				
US. ACGIH. BEIs. Biologi Components	Value	Determinant	Specimen	Sampling Time
HEXANES (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion , without	Urine	*
		hydrolycic		
* - For compling details, ple	ace see the source door	hydrolysis		
* - For sampling details, ple	ase see the source doc	• •		
* - For sampling details, ple <b>xposure guidelines</b> <b>US. ACGIH Threshold Lir</b>		• •		
xposure guidelines	nit Values	ument.	absorbed thro	ugh the skin.
xposure guidelines US. ACGIH Threshold Lir	nit Values -3)	ument. Can be		-
xposure guidelines US. ACGIH Threshold Lin HEXANES (CAS 110-54 US. California Code of Re N-HEXANE (CAS 110-54	nit Values -3) egulations, Title 8, Se 1-3)	ument. Can be ection 5155. Airbo Can be	orne Contami absorbed thro	<b>nants</b> ugh the skin.
xposure guidelines US. ACGIH Threshold Lin HEXANES (CAS 110-54 US. California Code of Re	nit Values -3) egulations, Title 8, Se 4-3) Explosion-proof ger changes per hour) s use process enclosu levels below recom	Can be cction 5155. Airbo Can be can be neral and local exha should be used. Ver ures, local exhaust v mended exposure li n acceptable level. I	absorbed thro ust ventilation. ntilation rates s ventilation, or o mits. If exposu	nants
xposure guidelines US. ACGIH Threshold Lin HEXANES (CAS 110-54 US. California Code of Re N-HEXANE (CAS 110-54 ppropriate engineering ontrols	nit Values -3) egulations, Title 8, Se 4-3) Explosion-proof ger changes per hour) s use process enclosu levels below recomma airborne levels to a when handling this res, such as personal	Can be ection 5155. Airbo Can be neral and local exha should be used. Ver ures, local exhaust v mended exposure li n acceptable level. I product.	absorbed thro ust ventilation. ntilation rates s ventilation, or o mits. If exposu Eye wash facili	nants ugh the skin. Good general ventilation (typically 10 air should be matched to conditions. If applicab other engineering controls to maintain airbon are limits have not been established, maintai ties and emergency shower must be availab
xposure guidelines US. ACGIH Threshold Lin HEXANES (CAS 110-54 US. California Code of Re N-HEXANE (CAS 110-54 ppropriate engineering ontrols	nit Values -3) egulations, Title 8, Se 4-3) Explosion-proof ger changes per hour) s use process enclosu levels below recomm airborne levels to a when handling this	Can be ection 5155. Airbo Can be neral and local exha should be used. Ver ures, local exhaust v mended exposure li n acceptable level. I product.	absorbed thro ust ventilation. ntilation rates s ventilation, or o mits. If exposu Eye wash facili	nants ugh the skin. Good general ventilation (typically 10 air should be matched to conditions. If applicab other engineering controls to maintain airbon are limits have not been established, maintai ties and emergency shower must be availab
xposure guidelines US. ACGIH Threshold Lin HEXANES (CAS 110-54 US. California Code of Re N-HEXANE (CAS 110-54 ppropriate engineering ontrols	nit Values -3) egulations, Title 8, Se +-3) Explosion-proof ger changes per hour) s use process enclosu levels below recomma airborne levels to an when handling this res, such as personal Chemical respirator	Can be ection 5155. Airbo Can be neral and local exha should be used. Ver ures, local exhaust v mended exposure li n acceptable level. I product. I protective equip with organic vapor	absorbed thro ust ventilation. ntilation rates s ventilation, or o mits. If exposu Eye wash facili ment cartridge and	nants ugh the skin. Good general ventilation (typically 10 air should be matched to conditions. If applicab other engineering controls to maintain airbon are limits have not been established, maintai ties and emergency shower must be availab
kposure guidelines US. ACGIH Threshold Lin HEXANES (CAS 110-54 US. California Code of Re N-HEXANE (CAS 110-54 ppropriate engineering ontrols ndividual protection measu Eye/face protection Skin protection Hand protection	nit Values -3) egulations, Title 8, Se 4-3) Explosion-proof ger changes per hour) s use process enclosu levels below recome airborne levels to ai when handling this res, such as personal Chemical respirator Wear appropriate c	Can be ection 5155. Airbo Can be neral and local exha should be used. Ver ures, local exhaust v mended exposure li n acceptable level. I product. I protective equip with organic vapor hemical resistant glo	absorbed thro ust ventilation. ntilation rates s ventilation, or c mits. If exposu Eye wash facili ment cartridge and oves.	<b>nants</b> ugh the skin. Good general ventilation (typically 10 air should be matched to conditions. If applicab other engineering controls to maintain airbor ure limits have not been established, maintai ties and emergency shower must be availab full facepiece.
xposure guidelines US. ACGIH Threshold Lin HEXANES (CAS 110-54 US. California Code of Re N-HEXANE (CAS 110-54 propriate engineering ontrols ndividual protection measu Eye/face protection Skin protection Hand protection Other	nit Values -3) egulations, Title 8, Se 4-3) Explosion-proof ger changes per hour) s use process enclosu levels below recomma airborne levels to an when handling this res, such as personal Chemical respirator Wear appropriate co Wear appropriate co	Can be ection 5155. Airbo Can be heral and local exha should be used. Ver ures, local exhaust v mended exposure li n acceptable level. I product. I protective equip with organic vapor hemical resistant glo hemical resistant clo	absorbed thro ust ventilation. ntilation rates s ventilation, or o mits. If exposu Eye wash facili ment cartridge and oves.	nants ugh the skin. Good general ventilation (typically 10 air should be matched to conditions. If applicab other engineering controls to maintain airbon the limits have not been established, maintai ties and emergency shower must be availab full facepiece.
xposure guidelines US. ACGIH Threshold Lin HEXANES (CAS 110-54 US. California Code of Re N-HEXANE (CAS 110-54 propriate engineering ontrols ndividual protection measu Eye/face protection Skin protection Hand protection Other Respiratory protection	nit Values -3) egulations, Title 8, Se +-3) Explosion-proof ger changes per hour) s use process enclosu levels below recomm airborne levels to al when handling this res, such as personal Chemical respirator Wear appropriate c Wear appropriate c Chemical respirator	Can be ection 5155. Airbo Can be neral and local exha should be used. Ver ures, local exhaust v mended exposure li n acceptable level. I product. I protective equip with organic vapor hemical resistant glo hemical resistant clo with organic vapor	orne Contami absorbed thro ust ventilation. ntilation rates s ventilation, or co mits. If exposu Eye wash facili ment cartridge and oves. othing. Use of a cartridge and	nants ugh the skin. Good general ventilation (typically 10 air should be matched to conditions. If applicab other engineering controls to maintain airbou ire limits have not been established, maintain ties and emergency shower must be availab full facepiece. an impervious apron is recommended. full facepiece.
xposure guidelines US. ACGIH Threshold Lin HEXANES (CAS 110-54 US. California Code of Re N-HEXANE (CAS 110-54 propriate engineering ontrols ndividual protection measu Eye/face protection Skin protection Hand protection Other	nit Values -3) egulations, Title 8, Se 4-3) Explosion-proof ger changes per hour) s use process enclosu levels below recomma airborne levels to an when handling this res, such as personal Chemical respirator Wear appropriate co Wear appropriate co	Can be ection 5155. Airbo Can be neral and local exha should be used. Ver ures, local exhaust v mended exposure li n acceptable level. I product. I protective equip with organic vapor hemical resistant glo hemical resistant clo with organic vapor	orne Contami absorbed thro ust ventilation. ntilation rates s ventilation, or co mits. If exposu Eye wash facili ment cartridge and oves. othing. Use of a cartridge and	nants ugh the skin. Good general ventilation (typically 10 air should be matched to conditions. If applicab other engineering controls to maintain airbou ire limits have not been established, maintain ties and emergency shower must be availab full facepiece. an impervious apron is recommended. full facepiece.

## 9. Physical and chemical properties

Appearance	Clear.
Physical state	Liquid.
Form	Liquid.
Color	Colorless.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-142.89 °F (-97.16 °C) estimated
Initial boiling point and boiling range	129.2 - 158 °F (54 - 70 °C)
Flash point	-9.3 °F (-22.9 °C) estimated

Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Upper/lower flammability or explosive limits		
Flammability limit - lower (%)	1.2 % estimated	
Flammability limit - upper (%)	7.5 % estimated	
Explosive limit - lower (%)	Not available.	
Explosive limit - upper (%)	Not available.	
Vapor pressure	227.7 hPa estimated	
Vapor density	Not available.	
Relative density	Not available.	
Solubility(ies)		
Solubility (water)	Not available.	
Partition coefficient (n-octanol/water)	Not available.	
Auto-ignition temperature	491 °F (255 °C)	
Decomposition temperature	Not available.	
Viscosity	Not available.	
Other information		
Density	0.681 g/cm3	
Flammability class	Flammable IB estimated	
Flash point class	Flammable IB	
Percent volatile	100 % estimated	
Specific gravity	0.68	
VOC (Weight %)	100 %	

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

# 11. Toxicological information

### Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Irritation of nose and throat. May cause respiratory irritation. Skin irritation. May cause redness and pain.
Information on toxicological e	ffects

#### Acute toxicity

Narcotic effects. May cause respiratory irritation.

Product	Species	Test Results
n-HEXANE-MTBE 80-20 MIXTURE	(CAS Mixture)	
Acute		
Inhalation		
LC50	Mouse	60000 mg/l
		60000 ppm, 4 Hours estimated
		60000 mg/l, 4 Hours estimated
	Rat	422.0107 mg/l, 4 Hours estimated
		422 mg/l
Oral		122 119/1
LD50	Rat	11991 mg/kg
LDJU	Nat	
		20 ml/kg estimated
	Wistar rat	61.25 mg/kg estimated
Other		
LD50	Rabbit	50 ml/kg estimated
Components	Species	Test Results
HEXANES (CAS 110-54-3)		
Acute		
Inhalation	Maria	40000
LC50	Mouse	48000 ppm, 4 Hours
		48000 mg/l, 4 Hours
	Rat	<= 48000 mg/l, 4 Hours
Oral		
LD50	Rat	28710 mg/kg
		43.5 mg/kg
		24 mg/kg
	Wistar rat	49 mg/kg
METHYL tert-BUTYL ETHER (CAS	1634-04-4)	
Acute	1051 01 1)	
Inhalation		
LC50	Rat	85 mg/l, 4 Hours
Oral		
LD50	Rat	4 ml/kg
Other		,
LD50	Rabbit	> 10 ml/kg
		> 10 ml/kg
		2 10 mig kg
* Estimates for product may	be based on additional component data not sh	nown.
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye	Causes serious eye irritation.	
rritation		
Respiratory or skin sensitizat		
Respiratory sensitization	Not available.	
Skin sensitization	This product is not expected to cause skin s	
Germ cell mutagenicity	No data available to indicate product or any mutagenic or genotoxic.	components present at greater than 0.1% are
Carcinogenicity	Suspected of causing cancer.	
	II Evaluation of Carcinogenicity	
METHYL tert-BUTYL ETH		fiable as to carcinogenicity to humans.
	Program (NTP) Report on Carcinogens	
Not available.		
Reproductive toxicity	Suspected of damaging fertility.	

Specific target organ toxicity - single exposure	May cause respiratory irritation. May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not available.
Chronic effects	Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure.

# 12. Ecological information

Ecotoxicity	Harmful to aquatic life with long lasting effects.			
Product		Species	Test Results	
n-HEXANE-MTBE 80-20 MIX	TURE (CAS Mixtu	ıre)		
Aquatic				
Fish	LC50	Fish	70.721 mg/l, 96 hours estimated	
Components		Species	Test Results	
HEXANES (CAS 110-54-3)				
Aquatic				
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours	
METHYL tert-BUTYL ETHER	(CAS 1634-04-4)	)		
Aquatic				
Fish	LC50	Fathead minnow (Pimephales promelas)	672 mg/l, 96 hours	
* Estimates for product may	y be based on ad	ditional component data not shown.		
ersistence and degradabilit	<b>d degradability</b> No data is available on the degradability of this product.			
ioaccumulative potential	No data avai	No data available.		
Partition coefficient n-oc	tanol / water (	(log Kow)		
HEXANES		3.9		
METHYL tert-BUTYL ETHER		0.94		
lobility in soil	No data avai	No data available.		
ther adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.			

## 13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

# 14. Transport information

DOT	
UN number	UN1993
UN proper shipping name	Flammable liquids, n.o.s. (HEXANES RQ = 6250 LBS, METHYL t-BUTYL ETHER), MARINE POLLUTANT
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Environmental hazards	
Marine pollutant	Yes

Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP1, TP8, TP28
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242
IATA	
UN number	UN1993
UN proper shipping name	Flammable liquid, n.o.s. (HEXANES, METHYL t-BUTYL ETHER)
Transport hazard class(es)	
Class	
0.000	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3H
Special precautions for	Read safety instructions, SDS and emergency procedures before handling.
user	
Other information	
Passenger and cargo	Allowed.
aircraft	Alloweu.
	Allowed.
Cargo aircraft only	Allowed.
IMDG	
UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (HEXANES, METHYL t-BUTYL ETHER)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	П
Environmental hazards	••
	N.
Marine pollutant	No.
EmS	F-E, <u>S-E</u>
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
	Not established.
Transport in bulk according to	ווטר באמטוואוובע.
Annex II of MARPOL 73/78	
and the IBC Code	
DOT	



#### Marine pollutant



DOT Regulated Marine Pollutant.

## 15. Regulatory information

15. Regulatory informat	ion		
US federal regulations	This product is a "Hazardou 29 CFR 1910.1200. All components are on the		ed by the OSHA Hazard Communication Standard,
TSCA Section 12(b) Expor	t Notification (40 CFR 707	, Subpt. D)	
Not regulated.	•	, , ,	
CERCLA Hazardous Subst	ance List (40 CFR 302.4)		
HEXANES (CAS 110-54-3	3)	Listed.	
METHYL tert-BUTYL ETH		Listed.	
SARA 304 Emergency rele	ease notification		
Not regulated.			
Superfund Amendments and I	Reauthorization Act of 198	6 (SARA)	
Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No		
SARA 302 Extremely haza Not listed.	ardous substance		
SARA 311/312 Hazardous chemical	No		
SARA 313 (TRI reporting) Chemical name		CAS number	% by wt.
HEXANES		110-54-3	80
METHYL tert-BUTYL ETH	IER	1634-04-4	20
Other federal regulations			
Clean Air Act (CAA) Section	on 112 Hazardous Air Pollu	itants (HAPs) List	
HEXANES (CAS 110-54-3 METHYL tert-BUTYL ETH Clean Air Act (CAA) Section		se Prevention (40 C	CFR 68.130)
Not regulated.			
Safe Drinking Water Act (SDWA)	Not regulated.		
US state regulations			
US. California Controlled	Substances. CA Departmer	nt of Justice (Califo	rnia Health and Safety Code Section 11100)
Not listed. US. Massachusetts RTK -	Substance List		
HEXANES (CAS 110-54-3 METHYL tert-BUTYL ETH			
US. New Jersey Worker and Community Right-to-Know Act			
HEXANES (CAS 110-54-3)			
METHYL tert-BUTYL ETHER (CAS 1634-04-4)			
US. Pennsylvania Worker and Community Right-to-Know Law			
HEXANES (CAS 110-54-3			
METHYL tert-BUTYL ETH	IER (CAS 1634-04-4)		
US. Rhode Island RTK			
HEXANES (CAS 110-54-3			
METHYL tert-BUTYL ETH	ILN (CAJ 1034-04-4)		

#### **US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

#### **International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

Issue date Version #	September-03-2015 01
Disclaimer	GFS Chemicals cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.
Revision Information	Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties Transport Information: Proper Shipping Name/Packing Group