

SDS - Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Gulf FR Fluid G-200 Other means of identification: Fire Resistent Hydraulic Fluid SDS Number: 334348 CAS Number: Blend CHEMTREC: EMERGENCY CONTACT 1-800-424-9300 – CHEMTREC (24 Hours) Supplier: Nu-Tier Brands, Inc., East Greenbush, NY Under License from Gulf Oil LP TECHNICAL CONTACT NUMBER: 1-800-566-4853 www.gulflubricants.net

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture: **GHS-US Classification:** Acute toxicity (oral), Category 4 H302 Skin corrosion/irritation, Category 2 H315 Serious eye damage/eye irritation, Category 1 H318 Specific target organ toxicity - Repeated exposure, Category 2 H373 Full text of H statements: see section 16 Label Elements: **GHS-US Labeling:** Hazard pictograms (GHS-US) Signal word (GHS-US): Danger Hazard statements (GHS-US): H302 - Harmful if swallowed H315 - Causes skin irritation H318 – Causes serious eye damage H373 – May cause damage to organs through prolonged or repeated exposure P260 - Do not breathe mist, spray or vapors Precautionary statements (GHS-US): P264 – Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 – Wear eye protection, protective gloves P301 + P312 – If swallowed: Call a doctor if you feel unwell P302 + P352 - If on skin: Wash with plenty of water P305 + P351 + P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P310 - Immediately call a doctor P314 – Get medical advice/attention if you feel unwell P321 – Specific treatment (see first aid measures on this label) P330 – Rinse mouth P332 + P313 – If skin irritation occurs: Get medical advice/attention

- P364 + P364 Take off contaminated clothing and wash it before reuse
- P501 Dispose of contents/container to Collection point

Other hazards:

No additional information available Unknown acute toxicity (GHS US)

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Not applicable

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS	Concentration %	GHS-US Classification
Diethylene glycol	111-46-6	40 - 50	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Oxirane, 2-methyl-, polymer with oxirane, ether with 2- ethyl-2- (hydroxymethyl)-1, 3-propanediol (3:1)	52624-57-4	10 - 15	Eye Dam. 1, H318
N,N-Diethylmonoethanolamine	108-01-0	1 - 2	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation: dust, mist), H332 Skin Corr. 1B, H314 STOT SE 3, H335
Capric acid	334-48-5	1 - 2	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret Full text of H-statements: see section 16

4. FIRST AID MEASURES

GENERAL: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

INHALATION: If you feel unwell, seek medical advice. If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

SKIN CONTACT: Wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if skin irritation occurs.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician if you feel unwell.

INGESTION: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed:

Symptoms/injuries:	Causes damage to organs.
Symptoms/injuries after inhalation:	Inhalation may cause irritation, coughing, shortness of breath. Irritation of the respiratory
	tract and the other mucous membranes.
Symptoms/injuries after skin contact:	Causes skin irritation
Symptoms/injuries after eye contact:	Causes serious eye damage
Symptoms/injuries after ingestion:	Swallowing a small quantity of this material will result in serious health hazard.

Indication of any immediate medical attention and special treatment needed:

All treatments should be based on observed signs and symptoms of distress in the patient.

5. FIREFIGHTING MEASURES

NFPA health hazard:	2 – intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.	
NFPA fire hazard: NFPA reactivity:	 1 – must be preheated before ignition can occur 0 – normally stable, even under fire exposure conditions, and not reactive with water 	

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EXTINGUISHING MEDIA:

Suitable extinguishing media: Unsuitable extinguishing media: Large fires: fog, foam, water spray. Small fires: Dry powder, carbon dioxide, sand. Do not use a solid water stream as it may scatter and spread fire.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Fire hazard: Explosion hazard: Reactivity:

Firefighting instructions:

No specific fire or explosion hazard Product is not explosive Hazardous polymerization will not occur

ADVICE FOR FIREFIGHTERS:

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

Protection during firefighting:

Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flame resistant/retardant clothing. Wear a self container breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

FOR NON-EMERGENCY PERSONNEL

Protective equipment:	Avoid all eye and skin contact and do not breathe vapor and mist. Wear suitable clothing and gloves. Nitrile gloves. Chemical goggles or safety glasses.	
Emergency procedures:	Evacuate unnecessary personnel.	
FOR EMERGENCY RESPONDERS		
Protective equipment:	Equip cleanup crew with proper protection. Avoid all eye and skin contact and do not breathe vapor and mist. Wear suitable protective clothing and gloves. Nitrile rubber. Chemical goggles or face shield with safety glasses.	
Emergency procedures:	Ventilate area.	
ENVIRONMENTAL PRECAUTIONS Prevent entry to sewers and public w	s vaters. Notify authorities if liquid enters sewers or public waters.	
METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP		

For containment:	Contain any spills with dikes or absorbents to prevent migration and entry into sewers or Streams. Absorb and/or contain spill with inert material, then place in suitable container.
Methods for cleaning up:	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

REFERENCE TO OTHER SECIONS Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

Collect spillage.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Precautions for safe handling:	Provide good ventilation in process area to prevent formation of vapor. Avoid breathing mist/vapor/spray. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Keep away from sources of ignition – No smoking.	
Hygiene measures:	Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace.	
CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES		

Keep only in the original container in a cool well ventilated place. Keep away from heat, Storage conditions: flame, and sources of ignition. Keep container closed when not in use.

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Incompatible products:

Strong bases. Strong acids. Strong oxidizers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Diethylene	glycol (111-46-6)		
Not applica			
Oxirane, 2-	methyl-, polymer with oxirar	e, ether wi	ith 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (52624-57-4)
Not applica	ble		
capric acid	l (334-48-5)		
Not applical	ble		
N,N-Dimeth	nylethanolamine (108-01-0)		
Not applica			
EXPOSU	JRE CONTROLS:		
Appropria	ate engineering controls:		ting mist or spray. Avoid splashing. Eyewash stations. Provide local exhaust or closed transfer systems to minimize exposures.
Personal	protective equipment:		nnecessary exposure.
Hand pro			able gloves. Nitrile rubber gloves. Neoprene gloves. PVC
Eye prote	ection:	Chemical g Is possible	goggles or face shield. Use splash goggles when eye contact due to splashing a.
	body protection:		able protective clothing. Impervious clothing.
Respirate	ory protection:	Where exposure through inhalation may occur from use, respiratory protection equipmen	
Ollowing	· · · · · · · · · ·		ended. Use an approved respirator equipped with oil/mist cartridges.
Other Inf	ormation:	Do not eat,	, drink or smoke during use.
9. PHYS	ICAL AND CHEMICA	L PROPI	ERTIES
Physical	state	:	: Liquid
Colour		:	: red Orange
Odour		:	: Amine-like
Odour th	nreshold	:	: No data available
рН			: 9 - 10
Melting		:	: < -40 °C
Freezing		:	: < -40 °C
Boiling p		:	: Foams
Flash po			: None
	evaporation rate (butyl acetate	,	: No data available
	bility (solid, gas)		: No data available
Explosiv		:	: No data available
•	e properties	:	No data available
	g properties		: No data available
	pressure	:	: < 0.01 mm Hg @ 20°C
Relative		:	No data available
	vapour density at 20 °C	:	No data available
Density		:	: 1.0874
Solubility	у	:	: Soluble in water.
10. STAB	LITY AND REACTIVI	гу	

10. STABILITY AND REACTIVITY



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 REACTIVITY:
 Hazardous polymerization will not occur.

 CHEMICAL STABILITY:
 Stable at ambient temperatures and under normal conditions of use.

 POSSIBILITY OF HAZARDOUS REACTIONS:
 Hazardous polymerization will not occur.

 CONDITIONS TO AVOID:
 Exposure to extremely high temperatures. Heat. Keep away from sources of ignition.

INCOMPATIBLE MATERIALS: Strong acids. Strong bases. Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Aldehydes. Alcohols. Ethers. Thermal decomposition generates: Carbon monoxide. Carbon oxides (CO, CO2). Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Likely routes of exposure:	Inhalation: Skin and eye contact
Acute toxicity:	Oral: Harmful if swallowed

Gulf FR Fluid G-200		
ATE US (oral)	1063.334 mg/kg bodyweight	
Diethylene glycol (111-46-6)		
LD50 dermal rat	13330 mg/kg	
LC50 inhalation rat (mg/l)	>4.6 mg/1/4h	
ATE US (oral)	500.000 mg/kg bodyweight	
ATE US (dermal)	13300.000 mg/kg bodyweight	
Oxirane, 2-methyl-, polymer with oxirane, ether eith 2-ethyl-2-(hydroxymethyl)-1, 3-propanediol (3:1) (52624-57-4)		
LD50 oral rat	>2000 mg/kg bodyweight no mortality occurred	
Capric acid (334-48-5)		
LD50 oral rat	10000 mg/kg	
LD50 dermal rabbit	>5000 mg/kg bodyweight	
N,N-Dimethylethanolamine (108-01-0)		
LD50 oral rat	1187 mg/kg	
LD50 dermal rabbit	>3000 mg/kg	
LC50 inhalation rat (mg/l)	6080 mg/m ³ 4 hours	
ATE US (oral)	1187.000 mg/kg bodyweight	
ATE US (dermal)	1100.000 mg/kg bodyweight	
ATE US (dust, mist)	1.5 mg/l/4h	

Skin corrosion/irritation:	Causes skin irritation
Serious eye damage/irritation:	Causes serious eye damage
Respiratory or skin sentisitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
Specific target organ toxicity (single exposure):	Not classified
Specific target organ toxicity (repeated exposure):	May cause damage to organs through prolonged or repeated exposure
Aspiration hazard:	Not classified
Symptoms/injuries after inhalation:	Inhalation may cause irritation, coughing, shortness of breath. Irritation of the respiratory tract and the other mucous membranes.
Symptoms/injuries after skin contact:	Causes skin irritation
Symptoms/injuries after eye contact:	Causes serious eye damage
Symptoms/injuries after ingestion:	Swallowing a small quantity of this material will result in serious health hazard



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Toxicity Ecology – general:

No ecotoxicological data about this product are known

Diethylene glycol (111-46-6)		
LC50 fish 1	75200 mg/l	
EC50 Daphnia 1	>10000 mg/l	
Oxirane, 2-methyl-, polymer with oxirane, ether w	vith 2-ethyl-2-(hydroxymethyl)-1, 3-propanediol (3:1) (52624-57-4)	
LC50 fish 1	>10000 mg/l	
Capric acid (334-48-5)		
LC50 fish 1	>100 mg/l	
EC50 other aquatic organisms 1	>100 mg/l	
N,N-Dimethylethanolamine (108-01-0)		
LC50 fish 1	146.63 mg/l	
EC50 Daphnia 1	98.37 mg/l	
EC50 other aquatic organisms 1	34.47 mg/l	

Persistence and degradability

Gulf FR Fluid G-200		
Biochemical oxygen demand (BOD)	0.57 5d (1.44 ppm)	
Chemical oxygen demand (COD)	12.6% (2.52 ppm)	
Diethylene glycol (111-46-6)		
Persistence and degradability	Readily biodegradable	
Capric acid (334-48-5		
Persistence and degradability	Readily biodegradable	
N,N-Dimethylethanolamine (108-01-0)		
Persistence and degradability	Readily biodegradable	

Bioaccumulative potential

Gulf FR Fluid G-200		
Bioaccumulative potential	Not established	
Diethylene glycol (111-46-6)		
Bioconcentration factor (BCF REACH)	100	
Log Pow	-1.98	
Bioaccumulative potential	Not expected to bioaccumulate	
Capric acid (334-48-5)		
Log Pow	4.09	
N,N-Dimethylethanolamine (108-01-0)		
Log Pow	-0.55	
Bioaccumulative potential	This product is not bioaccumulating	
Mobility in soil		
No additional information available		

No additional information available

Other adverse effects

No additional information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Sewage disposal recommendations: Waste disposal recommendations: Do not dispose of waste into sewer Dispose in a safe manner in accordance with local/national regulations



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Additional information:

Ecology - waste materials:

In its present state, this product is not a hazardous waste according to Federal Regulations (40 CFFR261.4 (b)(4)) Avoid release to the environment

14. TRANSPORTATION INFORMATION

Department of Transportation (DOT)

In accordance with DOT

Not considered a dangerous good for transport regulations

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

15. REGULATORY INFORMATION

US Federal Regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture is not known to contain a toxic chemical or chemeicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1, 3-propanediol (3:1) (52624-57-4)		
EPA TSCA Regulatory Flag	XU – XU – indicates a substance exempt from reporting under the	
	Inventory Update Reporting Rule, i.e., Partial Updating of the TSCA	
	Inventory Data Base Production and Site Reports (40 CFR 710(C)).	

International Regulations

CANADA

Diethylene glycol (111-46-6)

Listed on the Canadian DSL (Domestic Substances List) inventory

Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1, 3-propanediol (3:1) (52624-57-4)

Listed on the Canadian DSL (Domestic Substances List) inventory

Capric acid (334-48-5)

Listed on the Canadian DSL (Domestic Substances List) inventory

N,N-Dimethylethanolamine (108-01-0)

Listed on the Canadian DSL (Domestic Substances List) inventory

EU Regulations

 Diethylene glycol (111-46-6)

 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances

 Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2 (hydroxymethyl)-1, 3-propanediol (3:1) (52624-57-4)

 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances

 Capric acid (334-48-5)

 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances

 N,N-Dimethylethanolamine (108-01-0)

 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances

 National Regulations

 Diethylene glycol (111-46-6)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

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Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Taiwan National Chemical Inventory
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1, 3-propanediol (3:1) (52624-57-4)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on Taiwan National Chemical inventory
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on KECI (Korean Existing Chemicals Inventory)
Capric acid (334-48-5)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
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Listed on NZIoC (New Zealand Inventory of Chemicals)
N,N-Dimethylethanolamine (108-01-0)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECI (Korean Existing Chemicals Inventory)
Listed on Taiwan National Chemical Inventory
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
US State Regulations
California Proposition 65 – This product does not contain any substances known to the State of California to cause cancer

California Proposition 65 – This product does not contain any substances known to the State of California to cause cancer, developmentsl and/or reproductive harm.

N,N-Dimethylethanolamine (108-01-0)

U.S. - New Jersey - Right to Know Hazardous Substance List

16. OTHER INFORMATION

Disclaimer:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

The data in this Safety Data Sheet relates only to the specific material designated herein.

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Nu-Tier Brands, Inc. The data on this sheet are related only to the specific material designated herein. Nu-Tier Brands, Inc. assumes no legal responsibility for use or reliance upon these data.

End-use applications **NOT** supported by Nu-Tier Brands, Inc. for monoethylene glycol, diethylene glycol and triethylene glycol. These limitations include products restricted by law, applications in which may raise unacceptable risks, and other applications which Nu-Tier



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Brands, Inc. has decided not to, including minimizing unnecessary risk and liabilities to the company. Nu-Tier Brands, Inc. does not knowingly market these products into these non-supported applications. This list is not all-inclusive, and Nu-Tier Brands, Inc. reserves the right to modify the same at any time.

- The use of production of tobacco and in the manufacture of tobacco products (including but not limited to additives, humectants, filters, inks, and paper)
- The use for the generation of artificial smoke/theatrical fogs/mist. This includes applications such as artificial/e-cigarettes.
- The use as ingredient in fuel for warming foods (Sterno [™]-like application) or in fuel for heating an enclosed space where human exposure is possible.
- The use in fire extinguishing sprinkler systems.
- The use in the manufacture of munitions.
- The use in the production of de-icers for use on roadways, sidewalks and in aircraft lavatories.
- The use as a component of heat transfer fluids in systems where the heat transfer fluids could infiltrate (i.e., vian an exchanger leak, backflow prevention failure, or other means) a potable water.
- The use as a non-reacted component in a formulation for direct internal or external human/animal contact, including, but not limited to ingestion, inhalation, and skin contact and in medical/veterinary devices and medial/veterinary. Examples of some such applications are uses as a direct component in foods, beerages, pharmaceuticals, cosmetics, personal care products or children's products.
- The use for consumer or hospital usage for deodorizing or air "purifying" purposes by spraying as an aerosol.
- The use as a non-reacted component in adhesives, plasticizers, and softening agents for packaging having direct contact with food or beverage.
- The use as a non-reacted component in the formulation of glues, pastes, ice/heat packs or other items where the potential for significant human contact and/or ingestion exists (including but not limited to children's school glue/paste or arts/craft glue/paste, toys, children products).
- The use as a fluid for pressure testing piping.

Revision date:	July 28, 2016		
Data sources:	ACGIH 2000		
	European Chemicals Agency (ECHA) Registered Substances list. Accessed at		
	http://echa.europa.eu/.		
	Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth		
	Edition		
	National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.		
	OSHA 29CFR 1910.1200 Hazard Communication Standard. TSCA Chemical Substance Inventory		
	Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html.		
Abbreviations and acronyms:	ACGIH (American Conference of Government Industrial Hygienists)		
	ATE (Acute Toxicity Estimate)		
	CAS (Chemical Abstracts Service) number		
	CLP (Classification, Labeling, Packaging)		
	EC50 (Environmental Concentration associated with a response by 50% of the test population)		
	GHS (Globally Harmonized System of Classification and Labeling of Chemicals)		
	OSHA (Occupational Safety & Health Administration LD50 (Lethal Dose for 50% of the test population)		
	TSCA (Toxic Substances Control Act		
Other information:	None		
Full text of H-statements:			
H226	Elemmable liquid and vener		
H302	Flammable liquid and vapor Harmful if swallowed		
H312	Harmful in contact with skin		
H314			
H315	Causes severe skin burns and eye damage Causes skin irritation		
H318			
H319	Causes serious eye damage Causes serious eye irritation		
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H332	Harmful if inhaled
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects

END OF SDS