

MATERIAL SAFETY DATA SHEET

(USA)

(Complies with USA OSHA 29 CFR 1910.1200 and ANSI Z 400.1)

Version: 1

Revision date: 10 March 2011

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Code: F112
Product Name: Surfactant F112
Company Identification: Schlumberger Technology Corporation
110 Schlumberger Drive
Sugar Land, Texas 77478, USA
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2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING

Main physical hazards: No classified physical hazards.
Main health hazards: Causes eye irritation. May cause skin irritation.
Main environmental hazards: Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Precautions: Avoid contact with the skin and the eyes. Wear suitable protective equipment.
HMIS classification: Health: 2 Flammability: 0 Physical hazard: 0

Form: Liquid

Color: Clear Yellow

Odor: Alcohols

Principle routes of exposure:

Skin contact. Eye contact. Inhalation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %- Range
Polyethylene glycol monohexyl ether	31726-34-8	7-13

4. FIRST AID MEASURES

Eye contact: Immediately flush eyes with water for 20 minutes while holding eyelids open. Seek medical attention at once.

Skin contact: Wash off immediately with plenty of water for at least 15 minutes. Seek medical attention if irritation occurs.

Ingestion: DO NOT induce vomiting. Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, minimize the risk of aspiration by properly positioning the affected person.

Inhalation: Move to fresh air. Consult a physician if necessary.

5. FIRE-FIGHTING MEASURES

Fire hazard: Negligible.
Flash point: Does not flash.
Autoignition temperature: No data available.
Flammability limits in air:
 Lower: Not applicable
 Upper: Not applicable
Oxidizing properties: None known.

Suitable extinguishing media:
Water Fog, Alcohol Foam, CO2, Dry Chemical.

Extinguishing media which must not be used for safety reasons:
None known.

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases:
When heated strongly or burned, oxides of carbon, nitrogen oxides, ammonia and harmful organic chemical fumes are released.

Special protective equipment for firefighters:
Wear protective fire fighting clothing and avoid breathing vapors. Use self-contained breathing apparatus in closed areas.

NFPA rating:

Health:	2
Flammability:	1
Instability:	0
Special:	None

6. ACCIDENTAL RELEASE MEASURES

Main physical hazards: No classified physical hazards.
Personal precautions: Do not get on skin or clothing. Wash thoroughly after handling.
Methods for cleaning up: Dam up. Flush residual with plenty of water.
Environmental precautions: Keep out of waterways.

7. HANDLING AND STORAGE

Handling:

Precautions: Avoid contact with the skin and the eyes. Wear suitable protective equipment.

Safe handling advice: Wear suitable protective equipment.

Technical measures/ storage conditions: Keep away from direct sunlight. Keep container tightly closed.

Packaging requirements: High density polyethylene (HDPE) drum or can.

Incompatible products: No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure: Control the source. Enclosure of the process. Other suitable methods.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wear suitable protective equipment.

Respiratory protection: None normally needed. Use NIOSH approved respirator with organic vapor protection (color coded black or yellow) if vapors are generated and for emergencies.

Eye protection: Tightly fitting safety goggles.

Hand protection: Impervious gloves. PVC. Neoprene.

Skin and body protection: Chemical resistant apron.

Occupational Exposure Limits

Component	ACGIH - TLVs			OSHA - PELs		
	TWA / C	STEL	Skin	TWA / C	STEL	Final PELs - Skin
Polyethylene glycol monohexyl ether	-	-	-	-	-	-

Particles Not Otherwise Regulated/Specified [PNOR or PNOS] (insoluble or poorly soluble):

- OSHA PEL's for Inert or Nuisance Dust are covered by PNOR limits: respirable fraction: 5 mg/m³; total dust 15 mg/m³.
- ACGIH PNOS Recommendations: airborne concentrations should be kept below 3 mg/m³, respirable particulate, and 10 mg/m³, inhalable particles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical characterization:	Aqueous solution of organic compounds.
Fire hazard:	Negligible.
Form:	Liquid
Color:	Clear Yellow
Odor:	Alcohols
Odor threshold:	No information available.
pH:	9-11
Boiling point/range:	~100
Flash point:	Does not flash.
Flammability limits in air:	
Lower:	Not applicable
Upper:	Not applicable
Bulk density:	Not applicable.
Melting point/range:	5 °C / 41 °F
Decomposition temperature:	No data available.
Solubility:	
Water solubility:	Soluble
Fat solubility:	No information available.
Partition coefficient (n-octanol/water):	See also SECTION 12
Relative density:	~ 1.0 (@ 20°C)
Vapor pressure:	No data available.
Vapor density:	No data available.
Viscosity:	5-50 kPa.s (@ 16 °C)
Evaporation rate:	No data available.
% Volatile (VOC):	< 1

10. STABILITY AND REACTIVITY**Stability:**

Stable under recommended storage conditions.

Conditions to avoid:

Heat.

Incompatibility with other substances:

Strong bases. Oxidizers.

Hazardous decomposition products:

When heated strongly or burned, oxides of carbon, nitrogen oxides, ammonia and harmful organic chemical fumes are released.

Hazardous polymerization:

Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION**PRODUCT TOXICOLOGICAL INFORMATION**

Information given is based on data on the components and the toxicology of similar products.

Acute Health Hazard

Eye contact:	Severe eye irritation. Causes pain and redness. Prolonged or repeated contact may cause mild burn.
Skin contact:	May cause skin irritation. Prolonged skin contact may defat the skin and produce dermatitis.
Ingestion:	Aspiration hazard. Aspiration may cause pulmonary edema and pneumonitis. Harmful if swallowed; large amounts may cause illness.
Inhalation:	This is an unlikely route of exposure.
Sensitization - lung:	Not known to cause allergic reaction.
Sensitization - skin:	Not known to cause allergic reaction.

Chronic Health Hazard

Carcinogenic effects:	None known.
Mutagenic effects:	None known.
Teratogenic effects:	None known.
Reproductive toxicity:	None known.
Target organ effects:	None known.

COMPONENT TOXICOLOGICAL INFORMATION

Component	Target Organ Effects	LD50 / LC50
Polyethylene glycol monoethyl ether	-	-

Component	IARC Group 1 or 2	ACGIH - Carcinogens	OSHA Listed Carcinogens	NTP
Polyethylene glycol monoethyl ether	-	-	-	-

12. ECOLOGICAL INFORMATION**PRODUCT INFORMATION**

Main environmental hazards:	Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
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COMPONENT INFORMATION

Polyethylene glycol monoethyl ether	
Bioaccumulation:	No information available
Persistence / degradability:	No information available

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:
Dispose of in accordance with local regulations.

Contaminated packaging:
If reusable containers are used, send them back to the product supplier, after the required rinsing.

EPA RCRA Hazardous Waste Code:

None

14. TRANSPORT INFORMATION**DOT:**

CERCLA RQ: None

Hazard class: Not regulated.
Proper shipping name: Not regulated
Label(s): None required.

IMDG/IMO

Shipping name: Not regulated.

UN number: None

ICAO/IATA

Shipping name: Not regulated.

UN number: None

TDG (Canada):

Shipping name: Not regulated.
PIN: None

Note 1:

For the applicable placard selection refer to the appropriate transport regulations; the selection may vary depending on the cargo size and categories of other hazardous materials in the cargo.

15. REGULATORY INFORMATION**International Chemical Inventories**

USA, Toxic Substances Control Act inventory (TSCA): This product complies with TSCA requirements.

IMPORTS, USA: No import volume restrictions.

Canada, Domestic Substance List (DSL): This product complies with DSL requirements.

IMPORTS, Canada: No import volume restrictions.

U.S.A. Regulations

OSHA Hazard Communication Standard:
(Complies with USA OSHA 29 CFR 1910.1200 and ANSI Z 400.1)

EPA RCRA Hazardous Waste Code:
None

EPA, Sections 311 and 312 - Material Safety Data Sheet Requirements (40 CFR 370):

Immediate (Acute) Health Hazard: YES

Delayed (Chronic) Health Hazard:	None
Fire Hazard:	None
Sudden Release or Pressure Hazard:	None
Reactive Hazard:	None

EPA, Sections 313 - List of Toxic Chemicals (40 CFR 372):

This product contains the following substance(s), which appear(s) on the List of Toxic Chemicals:

Additional Regulatory Information

Polyethylene glycol monohexyl ether

EPA, CERCLA Section 102a/103 Hazardous Substances (40 CFR 302.4): None

CERCLA/SARA - Hazardous Substances and their RQs: None

EPA, SARA TITLE III Section 304, Extremely Hazardous Substances (40 CFR 355.40): None

California Proposition 65: None

International Hazard Class**WHMIS Hazard Class:**

D2B (Other Toxic Effects - Toxic Material)

16. OTHER INFORMATION**Current references:**

1. Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. *American Conference of Governmental Industrial Hygienists, Cincinnati OH.*
2. IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man. *World Health Organization, International Agency for Research on Cancer. Geneva, Switzerland.*
3. Annual Report on Carcinogens. National Toxicology Program. *U.S. Department of Health and Human Services, Public Health Service.*
4. NIOSH Registry of Toxic Effects of Chemical Substances (RTECS). *National Institute for Occupational safety and Health. Cincinnati, OH.*
5. LOLI Database.

Explanation of terms:

ACGIH:	American Conference of Governmental Industrial Hygienist
ACGIH-TL:	Threshold Limit Value
DSL:	Domestic Substance List
HMIRC:	Hazardous Materials Information Review Commission
IARC:	International Agency for Research on Cancer
NTP:	National Toxicology Program
NIOSH:	National Institute of Occupational Safety & Health
NIOSH-REL:	Recommended Exposure Limit
OSHA:	Occupational Safety & Health Administration
OSHA-PEL:	Permissible Exposure Limit
TSCA:	Toxic Substance Control Act (Inventory)

Occupational Exposure Limits indicators: TWA - Time Weighted Average; STEL - Short Term Limit; C - Ceiling Limit; units: [mg/m³]

ACGIH Notations:

"Skin" refers to the potential significant contribution to the overall exposure by the cutaneous route, including mucous membranes and the eyes, either by contact with vapors or by direct skin contact with the substance.

"A" notation indicates carcinogenicity as follows:

ACGIH classification: A1 - Confirmed Human Carcinogen; A2 - Suspected Human Carcinogen; A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans; A4 - Not Classifiable as a Human Carcinogen; A5 - Not suspected as a Human Carcinogen.

"SEN" refers to the potential for an agent to product sensitization as confirmed by human and animal data.

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End of the Material Safety Data Sheet