

MATERIAL SAFETY DATA SHEET

(USA)

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

Version: 5

Revision date: 19 June 2010

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

Product code: D047
Product name: Antifoam Agent D47
Company identification: Schlumberger Technology Corporation
110 Schlumberger Drive
Sugar Land, Texas 77478, USA
Telephone: 1-281-285-7873
Emergency telephone number: USA: +1-281-595-3518 (24hr)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Main physical hazards: No classified physical hazards.
Main health hazards: May be mildly irritating to eyes.
Other Information: Contaminated surfaces will be extremely slippery.
Precautions: DO NOT FREEZE.
HMIS classification: Health: 0 Flammability: 1 Physical hazard: 0

Form: Liquid **Color:** Colorless **Odor:** Faint
Principle routes of exposure:
Skin contact. Eye contact.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No | Weight % - Range |
|----------------------|------------|------------------|
| Polypropylene glycol | 25322-69-4 | 60 - 100 |

4. FIRST AID MEASURES

Eye contact: Rinse with water. Consult a physician if necessary.
Skin contact: Rinse with water.
Ingestion: Rinse mouth. Consult a physician if necessary. Never give anything by mouth to an unconscious person.
Inhalation: Move to fresh air. Consult a physician if necessary.

5. FIRE-FIGHTING MEASURES

Fire hazard: Combustible material.
Flash point: 185 °C / 365 °F
Autoignition temperature: No data available.
Flammability limits in air:

Lower: No information available.
Upper: No information available.
Oxidizing properties: None.

Suitable extinguishing media:

Use dry chemical, CO₂, water spray or "alcohol" foam.

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:

None reasonably foreseeable.

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: | 0 |
| Flammability: | 1 |
| Instability: | 0 |
| Special: | None |

6. ACCIDENTAL RELEASE MEASURES

Main physical hazards: No classified physical hazards.
Other Information: Contaminated surfaces will be extremely slippery.
Personal precautions: No special precautions required.
Methods for cleaning up: Dam up. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.
Environmental precautions: Prevent further leakage or spillage.

7. HANDLING AND STORAGE**Handling:**

| | |
|--|--|
| Precautions: | DO NOT FREEZE. |
| Safe handling advice: | Keep away from oxidizing agents. |
| Technical measures/ storage conditions: | No special storage conditions required. |
| Packaging requirements: | Steel or high density polyethylene (HDPE) container. |
| Incompatible products: | Oxidizing agents. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure: No special technical protective measures required.

Hygiene measures: Exercise reasonable care and cleanliness.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. If dust or mist is generated use NIOSH approved respirator with dust and mist protection (3M 8210).

Eye protection: It is good practice to wear goggles when handling any chemical.

Hand protection: Impervious gloves.

Skin and body protection: Clean, body-covering clothing.

Occupational Exposure Limits

| Component | ACGIH - TLVs | | | OSHA - PELs | | |
|----------------------|---------------|------|--------------|-------------|------|-------------------|
| | TWA / Ceiling | STEL | ACGIH - Skin | TWA / C | STEL | Final PELs - Skin |
| Polypropylene glycol | - | - | - | - | - | - |

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: | Organic compound. |
| Fire hazard: | Combustible material. |
| Form: | Liquid |
| Color: | Colorless |
| Odor: | Faint |
| Odor threshold: | Not applicable. |
| pH: | 8.5 |
| pH concentration: | 100 g/l |
| Boiling point/range: | Decomposes |
| Flash point: | 185 °C / 365 °F |
| Flammability limits in air: | |
| Lower: | No information available. |
| Upper: | No information available. |
| Bulk density: | Not applicable. |
| Melting point/range: | >-45 °C / -49 °F |
| Decomposition temperature: | > 242 °C / 468 °F |
| 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: | Negligible |
| Vapor density: | > 1 (air = 1) |
| Viscosity: | ~ 1000 mPa.s (@ 20 °C) |
| Evaporation rate: | No data available. |
| % Volatile (VOC): | > 90 |

10. STABILITY AND REACTIVITY**Stability:**

Stable under recommended storage conditions.

Conditions to avoid:

None known.

Incompatibility with other substances:

Oxidizers.

Hazardous decomposition products:

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

Hazardous polymerization:

Hazardous polymerization does not occur.

Other Information:

Contaminated surfaces will be extremely slippery.

11. TOXICOLOGICAL INFORMATION**PRODUCT TOXICOLOGICAL INFORMATION****Acute Health Hazard**

| | |
|--|--|
| Eye contact: | May be mildly irritating. |
| Skin contact: | No effect expected. Prolonged or repeated contact may cause mild irritation. |
| Ingestion: | Accidental ingestion of small amounts is not expected to cause adverse effects. Swallowing large amounts may be harmful. |
| Inhalation: | No effect expected. Prolonged or repeated exposure may cause mild irritation. |
| Sensitization - lung: | Not known to cause allergic reaction. |
| Sensitization - skin: | Not known to cause allergic reaction. |
| Toxicologically synergistic products: | None known. |

Chronic Health Hazard

| | |
|-------------------------------|--|
| Carcinogenic effects: | None known. |
| Mutagenic effects: | Not known to cause heritable genetic damage. |
| Teratogenic effects: | Not known to cause birth defects or have a deleterious effect on a developing fetus. |
| Reproductive toxicity: | Not known to adversely affect reproductive functions and organs. |
| Target organ effects: | None known. |

COMPONENT TOXICOLOGICAL INFORMATION

| Component | Target Organ Effects | LD50 / LC50 |
|----------------------|----------------------|---------------------------|
| Polypropylene glycol | - | > 2 g/kg (Oral LD50; Rat) |

| Component | IARC Group 1 or 2: | ACGIH - Carcinogens: | OSHA Listed Carcinogens | NTP: |
|----------------------|--------------------|----------------------|-------------------------|------|
| Polypropylene glycol | - | - | - | - |

12. ECOLOGICAL INFORMATION**PRODUCT INFORMATION**

| | |
|-------------------------------------|-------------------------------|
| Persistence / Degradability: | Not inherently biodegradable. |
| Bioaccumulation potential: | May bioaccumulate. |

COMPONENT INFORMATION

Polypropylene glycol

Bioaccumulation: log Pow = >4.6**Persistence / degradability:** Not biodegradable. 7.2 %. (28d; OECD306).**13. DISPOSAL CONSIDERATIONS****Waste from residues / unused products:**

Dispose of by injection or other acceptable method in accordance with local regulations.

Contaminated packaging:

Dispose of in accordance with local regulations. 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** This product complies with TSCA requirements.**Act inventory (TSCA):**

Canada, Domestic Substance List (DSL): This product complies with DSL requirements.
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: | None |
| 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

Polypropylene glycol

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:
Non-controlled product.

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| 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.

Section(s) revised: 16

Prepared by: Chemical Regulatory Compliance (CRC)

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End of the Material Safety Data Sheet