



# Material Safety Data Sheet

The Dow Chemical Company

**Product Name:** NORKOOL DESITHERM

**Issue Date:** 04/29/2009

**Print Date:** 03 Nov 2009

The Dow Chemical Company encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## 1. Product and Company Identification

**Product Name** NORKOOL DESITHERM

### COMPANY IDENTIFICATION

The Dow Chemical Company  
2030 Willard H. Dow Center  
Midland, MI 48674  
USA

Customer Information Number: 800-258-2436

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 989-636-4400

**Local Emergency Contact:** 989-636-4400

## 2. Hazards Identification

### Emergency Overview

**Color:** Colorless

**Physical State:** Liquid.

**Odor:** Characteristic

**Hazards of product:**

CAUTION! May cause skin irritation.

### OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Potential Health Effects

**Eye Contact:** May cause slight temporary eye irritation. Mist may cause eye irritation.

**Skin Contact:** Prolonged contact may cause skin irritation with local redness. May cause more severe response if skin is abraded (scratched or cut).

**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts. Massive contact with damaged skin or of material sufficiently hot to burn skin may result in absorption of potentially lethal amounts.

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**Inhalation:** At room temperature, exposure to vapor is minimal due to low volatility. Mist may cause irritation of upper respiratory tract (nose and throat).

**Ingestion:** Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. May cause nausea and vomiting. May cause abdominal discomfort or diarrhea. May cause dizziness and drowsiness. Oral toxicity is expected to be greater in humans due to triethylene glycol even though tests in animals show a lower degree of toxicity. Ingestion of quantities (approximately 65 mL (2 oz.) for diethylene glycol or 100 mL (3 oz.) for ethylene glycol) has caused death in humans.

**Effects of Repeated Exposure:** For the minor component(s): In humans, effects have been reported on the following organs: Central nervous system. Gastrointestinal tract. Kidney. Observations in humans include: Nystagmus (involuntary eye movement). In animals, effects have been reported on the following organs: Liver. Bladder. Kidney. Central nervous system. Gastrointestinal tract.

**Birth Defects/Developmental Effects:** Triethylene glycol did not cause birth defects in animals; reduced fetal body weight effects were seen only at very high doses. Diethylene glycol has caused toxicity to the fetus and some birth defects at maternally toxic, high doses in animals. Other animal studies have not reproduced birth defects even at much higher doses that caused severe maternal toxicity. Based on animal studies, ingestion of very large amounts of ethylene glycol appears to be the major and possibly only route of exposure to produce birth defects. Exposures by inhalation or skin contact, the primary routes of occupational exposure, had minimal effect on the fetus, in animal studies.

**Reproductive Effects:** Ingestion of large amounts of ethylene glycol has been shown to interfere with reproduction in animals. Diethylene glycol did not interfere with reproduction in animal studies except at very high doses.

### 3. Composition Information

Component	CAS #	Amount
Triethylene glycol	112-27-6	>= 94.0 %
Ethylene glycol	107-21-1	>= 1.0 - <= 3.0 %
Diethylene glycol	111-46-6	<= 1.0 %

### 4. First-aid measures

**Eye Contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

**Skin Contact:** Immediately flush skin with water while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Destroy contaminated leather items such as shoes, belts, and watchbands. Safety shower should be located in immediate work area.

**Inhalation:** Move person to fresh air; if effects occur, consult a physician.

**Ingestion:** Do not induce vomiting. Seek medical attention immediately. If person is fully conscious give 1 cup or 8 ounces (240 ml) of water. If medical advice is delayed and if an adult has swallowed several ounces of chemical, then give 3-4 ounces (1/3-1/2 Cup) (90-120 ml) of hard liquor such as 80 proof whiskey. For children, give proportionally less liquor at a dose of 0.3 ounce (1 1/2 tsp.) (8 ml) liquor for each 10 pounds of body weight, or 2 ml per kg body weight [e.g., 1.2 ounce (2 1/3 tbsp.) for a 40 pound child or 36 ml for an 18 kg child].

**Notes to Physician:** Due to structural analogy and clinical data, this material may have a mechanism of intoxication similar to ethylene glycol. On that basis, treatment similar to ethylene glycol intoxication may be of benefit. In cases where several ounces (60 - 100 ml) have been ingested, consider the use of ethanol and hemodialysis in the treatment. Consult standard literature for details of treatment. If ethanol is used, a therapeutically effective blood concentration in the range of 100 - 150 mg/dl may be achieved by a rapid loading dose followed by a continuous intravenous infusion. Consult standard literature for details of treatment. 4-Methyl pyrazole (Antizol®) is an effective blocker of alcohol dehydrogenase and should be used in the treatment of ethylene glycol (EG), di- or triethylene glycol (DEG, TEG), ethylene glycol butyl ether (EGBE), or methanol intoxication if available. Fomepizole protocol (Brent, J. et al., New England Journal of Medicine, Feb. 8, 2001, 344:6, p. 424-9): loading

dose 15 mg/kg intravenously, follow by bolus dose of 10 mg/kg every 12 hours; after 48 hours, increase bolus dose to 15 mg/kg every 12 hours. Continue fomepizole until serum methanol, EG, DEG, TEG or EGBE are undetectable. The signs and symptoms of poisoning include anion gap metabolic acidosis, CNS depression, renal tubular injury, and possible late stage cranial nerve involvement. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. In severe poisoning, respiratory support with mechanical ventilation and positive end expiratory pressure may be required. Maintain adequate ventilation and oxygenation of the patient. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. If burn is present, treat as any thermal burn, after decontamination. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

**Emergency Personnel Protection:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection) If potential for exposure exists refer to Section 8 for specific personal protective equipment.

## 5. Fire Fighting Measures

**Extinguishing Media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

**Hazardous Combustion Products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

## 6. Accidental Release Measures

**Steps to be Taken if Material is Released or Spilled:** Contain spilled material if possible. Small spills: Absorb with materials such as: Dirt. Sand. Sawdust. Vermiculite. Perlite. Zorb-all®. Oil-Dri or equivalent filler. Large spills: Dike area to contain spill. Pump into suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

**Personal Precautions:** Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

## 7. Handling and Storage

**Handling**

**General Handling:** Avoid contact with skin and clothing. Wash thoroughly after handling. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Other Precautions:** Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

**Storage**

Do not store near food, foodstuffs, drugs or potable water supplies. Additional storage and handling information on this product may be obtained by calling your sales or customer service contact.

**Shelf life: Use within 24 Months**

<b>8. Exposure Controls / Personal Protection</b>
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**Exposure Limits**

Component	List	Type	Value
Triethylene glycol	Dow IHG	TWA Total	100 mg/m3
Ethylene glycol	ACGIH	Ceiling Aerosol.	100 mg/m3
Diethylene glycol	WEEL	TWA	10 mg/m3

**Personal Protection**

**Eye/Face Protection:** Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

**Skin Protection:** When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, boots, apron, or full-body suit will depend on the task. When handling hot material, protect skin from thermal burns as well as from skin absorption.

**Hand protection:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Use gloves with insulation for thermal protection, when needed. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Respiratory Protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

**Ingestion:** Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face before smoking or eating.

**Engineering Controls**

**Ventilation:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

## 9. Physical and Chemical Properties

Physical State	Liquid.
Color	Colorless
Odor	Characteristic
Odor Threshold	No test data available
Flash Point - Closed Cup	177 °C (351 °F) <i>ASTM D93</i>
Flammability (solid, gas)	No
Flammable Limits In Air	<b>Lower:</b> 0.9 %(V) <i>Estimated</i> Vapor <b>Upper:</b> 9.2 %(V) <i>Estimated</i> Vapor
Autoignition Temperature	343 - 349 °C (649 - 660 °F) <i>Estimated</i>
Vapor Pressure	> 0.01 mmHg @ 25 °C <i>Estimated</i>
Boiling Point (760 mmHg)	213 °C (415 °F) <i>Estimated</i> .
Vapor Density (air = 1)	5.1 <i>Estimated</i>
Specific Gravity (H2O = 1)	1.1283 - 1.1295 <i>Estimated</i>
Freezing Point	-9.4 °C (15.1 °F) <i>Estimated</i>
Melting Point	No test data available
Solubility in water (by weight)	100 % <i>Literature</i>
pH	8.0 - 9.5 <i>Estimated</i>
Decomposition Temperature	No test data available
Partition coefficient, n-octanol/water (log Pow)	No data available for this product. See Section 12 for individual component data.
Evaporation Rate (Butyl Acetate = 1)	No test data available
Kinematic Viscosity	No test data available

## 10. Stability and Reactivity

### Stability/Instability

Stable under recommended storage conditions. See Storage, Section 7.

**Conditions to Avoid:** Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

**Incompatible Materials:** Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

### Hazardous Polymerization

Will not occur.

### Thermal Decomposition

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Ketones. Organic acids.

## 11. Toxicological Information

### Acute Toxicity

#### Ingestion

Single dose oral LD50 has not been determined.

For Ethylene glycol: Lethal Dose, Human, adult 3 Ounces

#### Skin Absorption

The dermal LD50 has not been determined.

### Repeated Dose Toxicity

For the minor component(s): In humans, effects have been reported on the following organs: Central nervous system. Gastrointestinal tract. Kidney. Observations in humans include: Nystagmus (involuntary eye movement). In animals, effects have been reported on the following organs: Liver. Bladder. Kidney. Central nervous system. Gastrointestinal tract. For the major component(s): Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

### Chronic Toxicity and Carcinogenicity

Contains component(s) which did not cause cancer in laboratory animals. Diethylene glycol has been tested for carcinogenicity in animal studies and is not believed to pose a carcinogenic risk to man.

### Developmental Toxicity

Triethylene glycol did not cause birth defects in animals; reduced fetal body weight effects were seen only at very high doses. Diethylene glycol has caused toxicity to the fetus and some birth defects at maternally toxic, high doses in animals. Other animal studies have not reproduced birth defects even at much higher doses that caused severe maternal toxicity. Based on animal studies, ingestion of very large amounts of ethylene glycol appears to be the major and possibly only route of exposure to produce birth defects. Exposures by inhalation or skin contact, the primary routes of occupational exposure, had minimal effect on the fetus, in animal studies.

### Reproductive Toxicity

Ingestion of large amounts of ethylene glycol has been shown to interfere with reproduction in animals. Diethylene glycol did not interfere with reproduction in animal studies except at very high doses. Triethylene glycol. In animal studies, did not interfere with reproduction.

### Genetic Toxicology

Contains a component(s) which were negative in In Vitro genetic toxicity studies. Contains component(s) which were negative in animal genetic toxicity studies.

## 12. Ecological Information

### ENVIRONMENTAL FATE

Data for Component: Triethylene glycol

#### Movement & Partitioning

Bioconcentration potential is low (BCF less than 100 or log Pow less than 3). Potential for mobility in soil is very high (Koc between 0 and 50).

**Henry's Law Constant (H):** 4.37E-10 atm\*m3/mole; 25 °C Estimated

**Partition coefficient, n-octanol/water (log Pow):** -1.75 Estimated

**Partition coefficient, soil organic carbon/water (Koc):** 10 Estimated

#### Persistence and Degradability

Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability). Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

#### Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
3.64E-11 cm <sup>3</sup> /s	3.5 h	Estimated

#### OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method
25 - 92 %	28 d	OECD 301C Test
> 70 - 95 %	2 - 14 d	OECD 302B Test

#### Biological oxygen demand (BOD):

BOD 5	BOD 10	BOD 20	BOD 28
12 - 32 %	15 - 64 %	17 - 86 %	

**Theoretical Oxygen Demand:** 1.60 mg/mg

Data for Component: Ethylene glycol

#### Movement & Partitioning

Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Potential for mobility in soil is very high (Koc between 0 and 50). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

**Henry's Law Constant (H):** 8.05E-09 atm\*m3/mole; 25 °C Estimated

**Partition coefficient, n-octanol/water (log Pow):** -1.36 Measured  
**Partition coefficient, soil organic carbon/water (Koc):** 1 Estimated  
**Distribution in Environment: Mackay Level 1 Fugacity Model:**

Air	Water.	Biota	Soil	Sediment
2.1 %	98 %	< 0.01 %	< 0.01 %	< 0.01 %

#### Persistence and Degradability

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

#### Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
8.32E-12 cm <sup>3</sup> /s	15 h	Estimated

#### OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method
> 94 %	28 d	OECD 301F Test
90 %	1 d	OECD 302B Test

**Theoretical Oxygen Demand:** 1.29 mg/mg

Data for Component: **Diethylene glycol**

#### Movement & Partitioning

Bioconcentration potential is low (BCF less than 100 or log Pow less than 3). Potential for mobility in soil is very high (Koc between 0 and 50). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

**Henry's Law Constant (H):** 7.96E-10 atm\*m<sup>3</sup>/mole; 25 °C Estimated

**Partition coefficient, n-octanol/water (log Pow):** -1.47 Estimated

**Partition coefficient, soil organic carbon/water (Koc):** < 1 Estimated

#### Persistence and Degradability

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

#### Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
2.23E-11 cm <sup>3</sup> /s	5.7 h	Estimated

#### OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method
92 %	28 d	OECD 301C Test
82 - 98 %	28 d	OECD 302C Test

**Theoretical Oxygen Demand:** 1.51 mg/mg

## ECOTOXICITY

Data for Component: **Triethylene glycol**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

#### Fish Acute & Prolonged Toxicity

LC50, bluegill (*Lepomis macrochirus*), 96 h: 61,000 mg/l

#### Aquatic Invertebrate Acute Toxicity

EC50, water flea *Daphnia magna*, 48 h: 49,000 mg/l

#### Toxicity to Micro-organisms

EC50; bacteria, Growth inhibition (cell density reduction), 16 h: > 10,000 mg/l

#### Aquatic Invertebrates Chronic Toxicity Value:

ChV Value mg/l	Species	Test Type	Endpoint	Exposure Time
10607 mg/l	water flea <i>Daphnia magna</i>	static renewal	growth	21 d

Data for Component: **Ethylene glycol**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

**Fish Acute & Prolonged Toxicity**

LC50, rainbow trout (*Oncorhynchus mykiss*), static, 96 h: 18,000 - 46,000 mg/l

**Aquatic Invertebrate Acute Toxicity**

LC50, water flea *Daphnia magna*, static, 48 h: 46,300 - 51,100 mg/l

**Aquatic Plant Toxicity**

EC50, green alga *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum*), biomass growth inhibition, 96 h: 9,500 - 13,000 mg/l

**Toxicity to Micro-organisms**

EC50, OECD 209 Test; activated sludge, respiration inhibition, 30 min: 225 mg/l

**Data for Component: Diethylene glycol**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

**Fish Acute & Prolonged Toxicity**

LC50, rainbow trout (*Oncorhynchus mykiss*), 96 h: > 1,000 mg/l

**Aquatic Invertebrate Acute Toxicity**

EC50, water flea *Daphnia magna*, 48 h, immobilization: 48,900 mg/l

**Aquatic Plant Toxicity**

EC50, green alga *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum*), biomass growth inhibition, 7 d: > 100 mg/l

**Toxicity to Micro-organisms**

IC50, OECD 209 Test; activated sludge, respiration inhibition, 3 h: > 1,000 mg/l

### 13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Reclaimer.

### 14. Transport Information

**DOT Non-Bulk**

NOT REGULATED

**DOT Bulk**

NOT REGULATED

**IMDG**

NOT REGULATED

**ICAO/IATA**

NOT REGULATED

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the*

transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## 15. Regulatory Information

### OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

Component	CAS #	Amount
Ethylene glycol	107-21-1	>= 1.0 - <= 3.0 %

### Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Component	CAS #	Amount
Triethylene glycol	112-27-6	>= 94.0 %
Ethylene glycol	107-21-1	>= 1.0 - <= 3.0 %
Diethylene glycol	111-46-6	<= 1.0 %

### Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

### California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

### US. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

### CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

## 16. Other Information

### Product Literature

Additional information on this product may be obtained by calling your sales or customer service contact. Additional information on this and other Dow products may be obtained by visiting our web page at [www.dow.com](http://www.dow.com).

**Recommended Uses and Restrictions**

For industrial use only. Gas treating. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

**Revision**

Identification Number: 1026440 / 1001 / Issue Date 04/29/2009 / Version: 1.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

*The Dow Chemical Company urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.*