



Safety Data Sheet

Better Chemistry. Better Business

DOWTHERM™ 55% V

Revised: 12/7/17

1 IDENTIFICATION

Product Name: DOWTHERM™ 55% V
Product Code :4621008
Recommended use of the chemical and restrictions on use:Industrial applications

Hubbard-Hall Inc.
563 South Leonard Street
Waterbury, CT 06708
Telephone: 203-756-5521
Fax number: 203-756-9017

Emergency Phone Number
CHEMTREC: 1 (800) 424-9300
International: 1 (703) 527-3887

2 HAZARDS IDENTIFICATION



Signal Word: WARNING

Hazard Category: Acute Toxicity-Oral Hazard Category 4
Specific Target Organ Toxicity (Repeated Exposure) Hazard Category 2

Hazard Statements: Harmful if swallowed.
Causes damage to kidney through prolonged or repeated exposure if swallowed.

Prevention: Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Do not breathe dust, fumes, gas, mist, vapors or spray.

Response: If swallowed: Call poison center/doctor if you feel unwell.
Get medical advice/attention if you feel unwell.

Disposal: Dispose of contents/container in accordance with local, regional, national, or international regulations.

Components with Unknown Acute Toxicity Dermal = 35%

3 COMPOSITION INFORMATION

| Chemical Name | Common Name And Synonyms | CAS No. and other Unique identifiers | Concentration % |
|-----------------|--------------------------|--------------------------------------|-----------------|
| Ethylene Glycol | - | 107-21-1 | ~55% |

4 FIRST AID

After Skin Contact:

If on skin(on hair): Take off immediately all contaminated clothing. Rinse with water/safety shower. Call doctor if irritation persists.

After Eye Contact:

If in eyes: Rinse cautiously for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If irritated, call doctor.

After Ingestion:

Do not induce vomiting. Seek medical attention immediately. If person is fully conscious give 1 cup or 8 ounces (240 ml) 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 cuo)(90-120 ml) of hard liquor such as 80 proof whiskey. For children, give proportionally less liquor at a dose of 0.3 ounce (1.5 tsp)(8 ml) liquor for each 10 pounds of body weight, or 2 ml per kg of body weight [eg, 1.2 ounce (2.3 tbsp) for a 40 pound child or 36 ml for an 18 kg child]

Most Important Symptoms/Effects

Inhalation:

May cause irritation and inflammation in nose, throat and lungs.

Eye:

Irritation of eyes and skin.

Skin:

This product can cause mild, transient skin irritation. The severity of irritation will depend on the amount of material that is applied to the skin and the speed and thoroughness that it is removed. Symptoms include redness, itching, and burning of the skin. Repeated or prolonged skin contact can produce moderate irritation(dermatitis).

Ingestion:

Oral toxicity is expected to be moderated in humans due to ethylene glycol even though tests in animals show a lower degree of toxicity. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause serious injury, even death. May cause nausea and vomiting. May cause abdominal discomfort or diarrhea. Excessive exposure may cause central nervous effects, cardiopulmonary effects (metabolic acidosis), and kidney failure.

Indication of immediate medical attention:

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Keep victim under observation.

Note to Physicians:

If several ounces (60-100 ml) of ethylene glycol have been ingested, early administration of ethanol may counter the toxic effects (metabolic acidosis, renal damage). Consider hemodialysis or peritoneal dialysis & thiamine 100 mg plus pyridoxine 50 mg intravenously every 6 hours. If ethanol is used, a therapeutically effective blood concentration in the range of 100-150 mg/dl may be achieved by rapid loading dose followed by continuous intravenous infusion. Consult standard literature for details of treatment. 4-methyl pyrazole (Antizole™) is an effective blocker of alcohol dehydrogenase and should be used in 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, followed by bolus dose of 10 mg/kg every 12 hours,

Note to Physicians:

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 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 for 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.

Note to Physicians:

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 patient.

5 FIRE FIGHTING MEASURES

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| Suitable and Unsuitable extinguishing media: | Avoid contact with water. Use foam, dry chemical or carbon dioxide. |
| Specific hazards arising from the chemical: | Carbon oxides may be produced. Spills produce extremely slippery surfaces |
| Special protective equipment and precautions for firefighter | Wear chemical resistant protective equipment and self contained breathing apparatus (SCBA). |

6 ACCIDENTAL RELEASE MEASURES

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| Methods and Materials for containment & cleaning up: | Stop spill at source. Caution: Spilled material may be slippery. If trained in accordance 29 CFR 1910.120, leaks should be stopped. Spills should be contained and cleaned immediately. Persons performing clean up work should wear adequate personal protective equipment and clothing. Spills and releases should be reported, if required, to the appropriate local, state and federal regulatory agencies. Absorb the chemical onto sand, vermiculite, or any other non-combustible absorbent, and collect into containers for later disposal. |
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7 HANDLING AND STORAGE

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| Precautions for safe handling: | Wash hands thoroughly after handling. Wear rubber gloves, goggles and chemical protective clothing. Eating, drinking and smoking in the work area is prohibited. |
| Conditions for safe storage, inc any incompatibilities: | Do not allow material to freeze. |

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

| Name | Std. | TWA-8hrs | STEL - 15 min. |
|-----------------|-------|----------------|----------------|
| Ethylene Glycol | ACGIH | 50 ppm (vapor) | |

ACGIH - American Control of Governmental Hygienists
OSHA - Occupational Safety and Health Administration

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|---------------------------|-------------------------------|
| Protective Gloves: | Rubber gloves |
| Eye Protection: | Wear chemical safety goggles. |

9 PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance: | Clear pink liquid |
| Odor: | characteristic |
| Odor Threshold: | N/A |
| PH: | 9.5 |
| Melting Point/Freezing Point: | N/A |
| Initial Boiling Point and Boiling Range: | N/A |
| Flash Point: | N/A |

| | |
|---|-------------------|
| Evaporation Rate: | N/A |
| Flammability (solid, gas): | Non flammable |
| Upper/Lower flammability or explosive limits: | N/A |
| Vapor Pressure: | N/A |
| Vapor Density: | >1 (Air=1) |
| Relative Density: | 1.0691 |
| Solubility (ies): | Complete in water |
| Partition Coefficient; n-octanol/water: | N/A |
| Auto-ignition Temperature: | N/A |
| Decomposition Temperature: | N/A |
| Viscosity: | N/A |

10 STABILITY AND REACTIVITY

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| Reactivity: | Hazardous Polymerization will not occur. |
| Chemical Stability: | Stable under normal conditions |
| Possibility of Hazardous Reactions: | Hazardous polymerization does not occur. |
| Incompatible Materials: | Avoid contact with strong oxidizers and strong acids. |

11 TOXICOLOGICAL INFORMATION

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| Oral Administration: | Ethylene Glycol-LD50(Rat)-6000-13000 mg/kg |
| Dermal administration: | Not established for this product |
| Immediate effects: | Irritation/ burns of skin and eyes. |
| Long term exposure: | Repeated excessive exposure may cause irritation of the upper respiratory tract. In humans, effects have been reported on the following organs: Central nervous system. Observations in humans include: Nystagmus (involuntary eye movement). In animals, effects have been reported on the following organs: Kidney, liver. |
| Cancer Hazard: | Not listed by IARC, NTP, OSHA, ACGIH |
| Routes of Exposure | Eyes, Skin, Inhalation, Ingestion |
| Mutagenicity | 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. |

12 ECOLOGICAL INFORMATION

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| Daphnia Magna, | EC50 (Static Test)->100 mg/L 48 h |
| Persistence and Degradability: | Will biodegrade readily |
| Biotic degradability: | No data available |
| Bioaccumulation potential: | Unlikely |
| Water result: | Disperses in water. |
| Soil/Sediment Result: | No data available |

13 DISPOSAL CONSIDERATION

Dispose of in accordance with local, state and federal regulations.

14 TRANSPORT INFORMATION

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|--------------------------|-------------------|
| UN Proper Shipping Name: | NOT DOT REGULATED |
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15 REGULATORY INFORMATION

HMIS: Health: 1 Flammability: 0 Reactivity: 0

16 OTHER INFORMATION

Disclaimer: The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship.