

PRODUCT NAME: ABRO Windshield De-Icer
PRODUCT NUMBER/SIZE: WD-400

Revision Date: 05/04/15

SECTION 1 Identification of the Substance and of the Company/Undertaking

MANUFACTURER'S NAME: ABRO INDUSTRIES, INC.
ADDRESS: 3580 Blackthorn Court
South Bend, IN 46628
USA
PRODUCT DESCRIPTION: Ice Remover
COMPANY PHONE: 574-232-8289
EMERGENCY 24-HR TELEPHONE: Chemtrec: US/Canada 1-800-424-9300
International +1-703-527-3887

SECTION 2 Hazards Identification

Classification:

Serious eye damage/eye irritation Category 2A
STOT, single exposure; Narcotic effects Category 3

Label Pictogram(s):



Signal Word: **WARNING**

Hazard Phrases: Causes serious eye irritation. May cause drowsiness or dizziness. Pressurized container: may burst if heated.

Precautionary Phrases: Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF eye irritation persists: Get medical advice/attention. IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Storage / Disposal: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

Other: Keep out of reach of children.

SECTION 3

Composition/Information on Ingredients

<u>COMPONENTS</u>	<u>CAS Number</u>	<u>Percent by weight</u>	<u>OSA PEL</u>	<u>ACGIH TLV</u>
ISOPROPYL ALCOHOL	67-63-0	53.5-55.2	400 ppm 980mg/m ³	200 ppm 400 ppm STEL
WATER		35.5-37.3		
CO2 PROPELLANT	124-38-9	4.5-5.2	5000 ppm	5000 ppm 30,000 ppm STEL
EHTYLENE GLYCOL	107-21-1	2.5-3.5	N/L	100mg/m ³ (Aerosol) Ceiling

SECTION 4

First Aid Measures

Inhalation	Move victim to fresh air. If overcome by vapor, get medical attention.
Eye Contact	Flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Skin Contact	Wash skin with soap and water. Get medical attention if irritation develops and persists.
Ingestion	Do not induce vomiting. Get medical attention if irritation develops and persists.

SECTION 5

Fire Fighting Measures

Extinguisher Media :	Alcohol –resistant foam, CO2, Dry Chemical
Flammability :	NON-FLAMMABLE
Flame Projection Data :	No Data

SECTION 6

Accidental Release Measures

PROCEDURES FOR CLEANING UP LEAKS AND SPILLS: Do not allow product to enter sewer or waterways. Prevent further leakage or spillage if safe to do so. Advise authorities if product has entered or may enter sewers, water sources or extensive land areas. Keep upwind of the spilled material and isolate exposure. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Store in a partly filled, closed container until disposal. Dispose of spill material in accordance with local, state or federal regulations.

SECTION 7

Handling and Storage

HANDLING: CAUTION: MAY CAUSE EYE IRRITANT. CONTENTS UNDER PRESSURE. Keep out of reach of children. Read label cautions carefully. Follow label directions to avoid injury. Use with adequate ventilation. Do not use in confined areas. Intentional misuse by deliberately concentrating and inhaling the contents of this product may be harmful or fatal. Keep away from heat, sparks or open flames. Wash hands thoroughly after each use. Do not smoke while using. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Do not puncture container.

STORAGE: Keep out of reach of children. Do not store near heat, sparks, or open flames. Do not expose to temperatures above 120°F as container may vent, rupture or burst. Do not puncture or incinerate container. Do not store in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible materials. Store in accordance with **NFPA 30B** for **Level 1 Aerosol**.

DISPOSAL: Before offering for recycling, empty the container by using the product according to the label. If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with regulations.

SECTION 8

Exposure Controls/Personal Protection

See Section 3 for applicable exposure limits.

ENGINEERING CONTROLS:

Maintain adequate ventilation.

PERSONAL PROTECTIVE EQUIPMENT:

Use respirator only as a last resort to control exposure.

Wear **CHEMICAL RESISTANT GLOVES** if repeated skin contact occurs or causes irritation.

Wear **SAFETY GLASSES** or **GOGGLES** to prevent eye contact.

SECTION 9

Physical and Chemical Properties

Physical State	Mixture packaged in pressurized aerosol spray can.
Appearance and Odor (Concentrate)	Colorless, clear liquid with a slight alcohol odor
Specific Gravity (Concentrate)	.815 - .825g/ml
pH	N/A
Evaporation Rate (BuAc=1)	<1.00
Boiling Point	>100°F
Solubility in Water	Soluble
%-VOC CONTENT	58.0%

SECTION 10

Stability and Reactivity

STABILITY:

Product is stable.

CONDITIONS TO AVOID:

Fire, sparks, open flames, temperatures above 120°F

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

Aldehydes, chlorine, ethylene oxide, halogens, isocyanates, strong acids, strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: CO₂, CO, hydrocarbons

SECTION 11 Toxicological Information

Product:

Acute toxicity

Acute oral toxicity:

Acute toxicity estimate: >5,000mg/kg

Method:

Calculation method

Acute inhalation toxicity:

Acute toxicity estimate: >40mg/l

Exposure time:

4 h

Test atmosphere:

vapour

Method:

Calculation method

Acute dermal toxicity:

Acute toxicity estimate: > 5,000mg/kg

Method:

Calculation method

Components:

67-63-0

Acute oral toxicity:

LD50 (rat); 5,500mg/kg

Symptoms:

Ataxia, vomiting, pain, hypothermia, coma, dizziness;

Acute Inhalation toxicity:

LC50 (rat, male and female) : >10,000 ppm

Exposure time:

6 h

Test atmosphere:

vapour

Symptoms:

Central nervous system depression

GLP:

Yes

Assessment:

The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

Acute dermal toxicity LD50 (rabbit) :

>12,800mg/kg

Respiratory or skin sensitization

Components:

67-63-0:

Test type:

Buehler Test

Exposure routes:

Dermal

Species:

Guinea pig

Assessment:

Does not cause respiratory sensitization.

Method:

OECD Test Guideline 406

Result:

Does not cause skin sensitization.

GLP:

Yes

Remarks:

Not sensitizing

Carcinogenicity

Components:

67-63-0:

Species:

Rat, (male and female)

Application Route:

Inhalation (vapour)

Exposure time:

104 wks

Activity duration:

6 h

Dose:

0, 500, 2500, 5000 ppm

Frequency of Treatment:

5 days/week

NOAEL:

5,000 ppm

Method:

OECD Test Guideline 451

Result:

Did not display carcinogenic properties

GLP:

Yes

Species:

Mouse, (male and female)

Application Route:

Inhalation (vapor)

Exposure time:	78 wks
Activity duration:	6 h
Dose:	0, 500, 2500, 5000 ppm
Frequency of Treatment:	5 days/week
NOAEL:	5,000 ppm
Result:	Did not display carcinogenic properties
GLP:	Yes
Carcinogenicity – Assessment:	Not classifiable as a human carcinogen.

Reproductive toxicity

Components:

67-63-0:

Effects on fertility:	
Test Type:	Two-generation study
Species:	Rat, male and female
Dose:	0, 100, 500, 1000 mg/kg bw/d
General Toxicity - Parent:	NOAEL: 500 mg/kg body weight
General Toxicity F1:	NOAEL: 500 mg/kg body weight
Fertility: NOAEL:	1,000 mg/kg body weight
Symptoms:	Maternal effects. Fetotoxicity. Reduced offspring weight gain.
Method:	OECD Test Guideline 416
Result:	Animal testing did not show any effects on fertility.
GLP:	Yes
Effects on fetal development:	
Species:	rabbit
Application Route:	Oral
Dose:	0, 120, 240, 480 mg/kg bw/day
Duration of Single Treatment:	13 d
General Toxicity Maternal:	NOAEL: 240 mg/kg body weight
Developmental Toxicity:	NOAEL: 480 mg/kg
Symptoms:	Maternal toxicity
Result:	No teratogenic effects.
GLP:	Yes

Product: Target Organs: Central nervous system

Components:

67-63-0:

Exposure routes:	Inhalation
Target Organs:	Central nervous system
Assessment:	May cause drowsiness or dizziness.
Components:	No data available
STOT - repeated exposure	
Product:	No data available
Components:	No data available
Components:	No data available

Repeated dose toxicity

Components:

67-63-0:

Species:	Rat, male and female
NOAEL:	> 5000
Application Route:	Inhalation (vapour)
Exposure time:	13 wks
Number of exposures:	6 h/d, 5 d/wk

Dose:	0, 100, 500, 1500, 5000 ppm
Method:	OECD Test Guideline 413
GLP:	Yes
Symptoms:	Central nervous system depression
Species:	Mouse, male and female
NOAEL:	> 5000
Application Route:	Inhalation (vapour)
Exposure time:	13 wks
Number of exposures:	6 h/d, 5 d/wk
Dose:	0, 100, 500, 1500, 5000 ppm
Method:	OECD Test Guideline 413
GLP:	Yes
Symptoms:	Central nervous system depression

Components:

67-63-0:

May be harmful if swallowed and enters airways.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

107-21-1:

Acute Toxicity - Lethal Doses

LD50 (Oral) Rat 5890 - 13,400 MG/KG BWT

NOAEL Rabbit > 3549 MG/KG BWT (SKIN)

Irritation

Skin May be irritating to the skin. Not expected to be a sensitizer. No significant signs or symptoms indicative of any health hazard are expected to occur as a result of skin absorption exposure. Eye May cause minor eye irritation. Effects of eye irritation are reversible.

Sensitization

Not expected to be a sensitizer.

Target Organ Effects

Central nervous system effects. Blood (metabolic acidosis). Respiratory system. Cardiovascular system. Kidneys.

Repeated Dose Toxicity

If exposures are sufficiently high to cause accumulation of calcium oxalate crystals, kidney pathology may occur. In male rats, crystal nephropathy has been seen after dietary administration of 500 mg/kg/day bwt for 16 weeks, whereas no effects were seen in rats that ingested 200 mg/kg/day bwt for 2 years or in several animal species that inhaled 12 mg/m³ for 3 months. Human exposures at occupational relevant concentrations are unlikely to cause crystal nephropathy.

Reproductive Effects

No evidence of adverse effects on reproductive organs or fertility in rats and rabbits have occurred from ethylene glycol exposure. Mice exposed to doses considerably higher than those associated with developmental effects or kidney effects in rats exhibited reduced number of litters and smaller litters. No reproductive effects expected from human exposures.

Developmental Effects

Doses of ethylene glycol that result in high levels of the metabolite glycolic acid induce developmental/teratogenic effects in rats and mice, although at doses greater than those associated with

kidney effects in rats. Human exposure is not expected to generate sufficient levels of glycolic acid; therefore, no developmental effects are expected in humans.

Genetic Toxicity

Negative for genotoxicity both in vitro and in vivo tests.

Carcinogenicity

Ethylene glycol was not carcinogenic in two year studies in rats and mice. This material is not classified as a carcinogen. Not listed by IARC, NTP, or OSHA.

Other Information

Human acute toxicity has three recognized stages: **Stage 1.** (0.5 to 12 hours post ingestion) may include inebriation, nausea and vomiting, metabolic acidosis, and CNS depression. **Stage 2.** (12-24 hours) cardiopulmonary effects include tachycardia, hypertension, and severe metabolic acidosis with hyperventilation, hypoxia, congestive heart failure and adult respiratory distress syndrome. **Stage 3.** (24-72 hours) renal failure. Ethylene glycol may also produce a local irritation effect on the digestive system, and cause pain and bleeding.

SECTION 12

Ecological Information

Ecotoxicity

Components:

67-63-0:

Toxicity to fish

LC50 (Pimephales promelas (fathead minnow)): 9,640 mg/l

Exposure time: 96 h

Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 24 h

Test Type: static test

Toxicity to algae: Remarks: No data available

Toxicity to bacteria: Toxicity threshold (Pseudomonas putida): 1,050 mg/l

Exposure time: 16 h

Components:

67-63-0:

Biodegradability: Result: Readily biodegradable.

Biodegradation: 95 %

Method: OECD Test Guideline 301E

Bioaccumulative potential

Components:

67-63-0:

Bioaccumulation: Bioconcentration factor (BCF): 3.16

Remarks: Does not significantly accumulate in organisms.

Partition coefficient: n-octanol/water: log Pow: 0.05 (25 °C)

Components:**67-63-0:**

Stability in soil: Remarks: Adsorbs on soil.

107-21-1**Ecotoxicity**

This material is expected to be non-hazardous to aquatic species. See component summary. Terrestrial plant and avian NOEC (No Observed Effect Concentration) data are available upon request.

Environmental Fate and Pathway

Mobile in soil. Not expected to volatilize from surface waters or soils. Not likely to adsorb to suspended solids and sediment in water. Environmental half-life of 0.35 to 24 days in soil, air, surface and ground water. Not expected to undergo hydrolysis. Undergoes photo-oxidation with hydroxyl radicals in air with a half-life of 8.3 to 83 hours.

SECTION 13

Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14

Transport Information

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

U.S. DOT UN/ID Number: UN1950
Proper shipping name: Aerosols, non-flammable
Hazard class: 2.2
Packing Group: None
Exceptions: May be shipped as a limited quantity or consumer commodity
Environmental Hazards: No
Transport in Bulk: Not Applicable
Special Precautions: ERG#126

IMO/IMDG UN/ID Number: UN1950
Proper shipping name: Aerosols
Hazard class: 2.2
Packing Group: None
Exceptions: May be shipped as a limited quantity
Environmental Hazards: No
Transport in Bulk: Not Applicable
Special Precautions: EmS F-D, S-U

ICAO/IATA UN/ID Number: UN1950
Proper shipping name: Aerosols, non-flammable

Hazard Class: 2.2
Packing Group: None
Exceptions: May be shipped as a limited quantity or reclassified to ID8000
Environmental Hazards:
Transport in Bulk: Not Applicable
Special Precautions: None

Canada (TDG) UN/ID Number: UN1950
Proper shipping name: Aerosols, non-flammable
Hazard class: 2.2
Packing Group: None
Exceptions: May be shipped as a limited quantity
Environmental Hazards: No
Transport in Bulk: Not Applicable
Special Precautions: ERG#126

Europe (ADR/RID) UN/ID Number: UN1950
Proper shipping name: Aerosols, non-flammable
Hazard class: 2.2
Packing Group: None
Exceptions: May be shipped as a limited quantity
Environmental Hazards: No
Transport in Bulk: Not Applicable
Special Precautions:

SECTION 15 Regulatory Information

This product is considered to be hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 313 Information (40 CFR 372): This product contains a chemical which is listed in Section 313 at or above the de minimis concentrations.

Component Reporting	Threshold
Ethylene Glycol / CAS# 107-21-1	1.0%

U. S. Toxic Substance Control Act (TSCA): All components of this material are on the Toxic Substance Control Act (TSCA) Chemical Substance Inventory list or are exempt.

Canadian Domestic Substance List (DSL): All components of this product are on the Canadian DSL.

Proposition 65 – California Safe Drinking Water and Toxic Enforcement Act of 1986
This product is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would be subject to the proposition.

SECTION 16 Other Information

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the

product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

ABBREVIATIONS:

NG="NOT GIVEN"

BT="BETWEEN"

<="LESS THAN"

>="GREATER THAN"

ND = Not Determined

NA = Not Applicable