PRIME GUARD DE-ICER 11.5 OZ.

Safety Data Sheet

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Trade name : PRIME GUARD DE-ICER 11.5 OZ.

Product code : PRIMDI115

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : De-Icer

1.3. Details of the supplier of the safety data sheet

Highline Warren, LLC
4500 Malone Road
Memphis, TN 38118
T 901.437.8615
www.highlinewarren.com

1.4. Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable aerosol Category 2	H223 Flammable aerosol
Gases under pressure Compressed gas	H280 Contains gas under pressure; may explode if heated
Acute toxicity (oral) Category 3	H301 Toxic if swallowed
Acute toxicity (dermal) Category 3	H311 Toxic in contact with skin
Serious eye damage/eye irritation Category 2	H319 Causes serious eye irritation
Specific target organ toxicity (single exposure) Category 1	H370 Causes damage to organs

Full text of H- and EUH-statements: see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) :
H223 - Flammable aerosol
H280 - Contains gas under pressure; may explode if heated
H301+H311 - Toxic if swallowed or in contact with skin
H319 - Causes serious eye irritation
H370 - Causes damage to organs

Precautionary statements (GHS US) :
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Pressurized container: Do not pierce or burn, even after use.
P260 - Do not breathe dust,fumes,gas,mist,vapor spray
P264 - Wash affected areas thoroughly after handling
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves,protective clothing,eye protection,face protection
P301+P310 - If swallowed: Immediately call a poison control center, doctor,physician,
P302+P352 - If on skin: Wash with plenty of soap and water
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307+P311 - If exposed: Call a poison center/doctor.
P312 - Call a POISON CONTROL CENTER, doctor, if you feel unwell.
P321 - Specific treatment: See section 4.1 on SDS
P322 - Specific treatment (see supplemental first aid instruction on this label)
P330 - Rinse mouth.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P405 - Store locked up.
P410+P403 - Protect from sunlight. Store in a well-ventilated place.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

2.3. Other hazards

Other hazards which do not result in classification : Contains gas under pressure; may explode if heated. None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Methanol	(CAS-No.) 67-56-1	70 – 85	Flam. Liq. 2, H225 STOT SE 1, H370
Ethylene Glycol	(CAS-No.) 107-21-1	10 – 30	Acute Tox. 1 (Oral), H300 Acute Tox. 4 (Inhalation:vapour), H332
Acetone	(CAS-No.) 67-64-1	5 – 10	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Carbon Dioxide, Liquefied, Under Pressure	(CAS-No.) 124-38-9	5 – 10	Press. Gas (Comp.), H280
2-Aminoethanol	(CAS-No.) 141-43-5	≤ 0.081	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1, H314
Water	(CAS-No.) 7732-18-5	0.047 – 0.048	Not classified
Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution	(CAS-No.) 2492-26-4	0.047 – 0.048	Met. Corr. 1, H290 Skin Corr. 1A, H314 Skin Sens. 1, H317
Benzene	(CAS-No.) 71-43-2	< 0.001	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a POISON CENTER or doctor/physician.

First-aid measures after inhalation : Cough. Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a poison center or doctor/physician. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Specific measures (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persists. Direct contact with the eyes is likely to be irritating.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : May cause genetic defects. Causes damage to organs.

Symptoms/effects after inhalation : Shortness of breath. May cause cancer by inhalation.

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.

Symptoms/effects after eye contact : May cause slight eye irritation . Inflammation/damage of the eye tissue. Irritation of the eye tissue. Redness of the eye tissue.

Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor. Flammable aerosol.

Explosion hazard : May form flammable/explosive vapor-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire reaches explosives. Evacuate area.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Aerosol Level 2.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : No open flames. No smoking. Isolate from fire, if possible, without unnecessary risk. Remove ignition sources. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust,fume,gas,mist,vapor spray.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill. Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply.

Methods for cleaning up : Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or burn, even after use.

Precautions for safe handling : No open flames. No smoking. Use only non-sparking tools. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not spray on an open flame or other ignition source. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Do not breathe dust,fumes,gas,mist,vapor spray.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Take off immediately all contaminated clothing and wash it before reuse. Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep container tightly closed. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

Storage area : Store in a well-ventilated place.

7.3. Specific end use(s)

Follow Label Directions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PRIME GUARD DE-ICER 11.5 OZ.	
No additional information available	

Ethylene Glycol (107-21-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	25 ppm (Vapor fraction)
ACGIH OEL STEL	10 mg/m³ (Inhalable fraction, Aerosol only)
ACGIH OEL STEL [ppm]	50 ppm (Vapor fraction)

Water (7732-18-5)
No additional information available

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)
No additional information available

2-Aminoethanol (141-43-5)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	3 ppm
ACGIH OEL STEL [ppm]	6 ppm

Methanol (67-56-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	262 mg/m³
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL	328 mg/m³
ACGIH OEL STEL [ppm]	250 ppm
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [1]	260 mg/m³
OSHA PEL (TWA) [2]	200 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	260 mg/m³
NIOSH REL TWA [ppm]	200 ppm
NIOSH REL (Ceiling)	325 mg/m³
NIOSH REL C [ppm]	250 ppm

Benzene (71-43-2)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	1 ppm
ACGIH OEL STEL [ppm]	5 ppm
ACGIH OEL Ceiling [ppm]	25 ppm
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [2]	1 ppm
OSHA PEL C [ppm]	5 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	0.32 mg/m³
NIOSH REL TWA [ppm]	0.1 ppm
NIOSH REL (Ceiling)	3.2 mg/m³
NIOSH REL C [ppm]	1 ppm

Acetone (67-64-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	1188 mg/m³
ACGIH OEL TWA [ppm]	500 ppm
ACGIH OEL STEL	1782 mg/m³
ACGIH OEL STEL [ppm]	750 ppm
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [1]	2400 mg/m³
OSHA PEL (TWA) [2]	1000 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	590 mg/m³
NIOSH REL TWA [ppm]	250 ppm

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	9000 mg/m³
ACGIH OEL TWA [ppm]	5000 ppm
ACGIH OEL STEL	54000
ACGIH OEL STEL [ppm]	30000 ppm
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [1]	9000 mg/m³
OSHA PEL (TWA) [2]	5000 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	9000 mg/m³
NIOSH REL TWA [ppm]	5000 ppm
NIOSH REL (Ceiling)	54000 mg/m³
NIOSH REL C [ppm]	30000 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls : Local exhaust venilation, vent hoods . Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses. Avoid all unnecessary exposure.

Materials for protective clothing:

Excellent resistance:

Hand protection:

Wear protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas

Appearance : Liquid.

Color : Colourless to light yellow.

Odor : Mild . Sweet. Alcohol odour.

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : 56 °C (Lowest Component)

Flash point : -18 °C (Lowest Component)

Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability	:	No data available
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	0.85
Solubility	:	Soluble in alcohols. Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Partition coefficient n-octanol/water (Log Kow)	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Explosion limits	:	No data available

9.2. Other information

VOC content	:	84.9 %
Gas group	:	Compressed gas

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture. Flammable aerosol. Contains gas under pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Open flame. Overheating.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

May release flammable gases. Toxic fume. . Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Toxic if swallowed.
Acute toxicity (dermal)	:	Toxic in contact with skin.
Acute toxicity (inhalation)	:	Not classified

ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight

Ethylene Glycol (107-21-1)	
LD50 oral rat	7712 mg/kg body weight
LD50 dermal rat	> 3500 mg/kg body weight
LC50 Inhalation - Rat	> 2.5 mg/l 6 Hour by Air
ATE US (oral)	0.5 mg/kg body weight
ATE US (vapors)	11 mg/l/4h

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)	
LD50 oral rat	5200 mg/kg
LD50 dermal rabbit	5010 mg/kg
ATE US (oral)	5200 mg/kg body weight
ATE US (dermal)	5010 mg/kg body weight

2-Aminoethanol (141-43-5)	
LD50 oral rat	1089 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	1018 mg/kg (24 h, Rabbit, Inconclusive, insufficient data, Dermal)

2-Aminoethanol (141-43-5)	
LC50 Inhalation - Rat	> 1.3 mg/l air (6 h, Rat, Male / female, Experimental value, (maximum achievable concentration), Inhalation (vapours))
ATE US (oral)	1089 mg/kg body weight
ATE US (dermal)	1018 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h

Methanol (67-56-1)	
LD50 oral rat	≥ 2528 mg/kg body weight application as 50% aqueous solution
LD50 dermal rabbit	17100 mg/kg corresponding to 20 ml/kg bw according to the authors
LC50 Inhalation - Rat	128.2 mg/l/4h Air
ATE US (dermal)	17100 mg/kg body weight
ATE US (vapors)	128.2 mg/l/4h
ATE US (dust, mist)	128.2 mg/l/4h

Benzene (71-43-2)	
LD50 oral rat	> 2000 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 7 day(s))
LD50 dermal rabbit	> 9.4 ml/kg (21 CFR 191.10, 24 h, Rabbit, Male / female, Experimental value, Damaged skin)
LC50 Inhalation - Rat	43.77 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Female, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (vapors)	43.77 mg/l/4h
ATE US (dust, mist)	43.77 mg/l/4h

Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	20000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402)
LC50 Inhalation - Rat	71 mg/l/4h (Rat; Experimental value; 76 mg/l/4h; Rat; Experimental value)
LC50 Inhalation - Rat [ppm]	30000 ppm/4h (Rat; Experimental value)
ATE US (oral)	5800 mg/kg body weight
ATE US (dermal)	20000 mg/kg body weight
ATE US (gases)	30000 ppmV/4h
ATE US (vapors)	71 mg/l/4h
ATE US (dust, mist)	71 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	Known Human Carcinogens

Reproductive toxicity : Not classified

STOT-single exposure : Causes damage to organs.

Methanol (67-56-1)	
STOT-single exposure	Causes damage to organs.

Acetone (67-64-1)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Benzene (71-43-2)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Toxic if swallowed. Toxic in contact with skin.

Symptoms/effects : May cause genetic defects. Causes damage to organs.

Symptoms/effects after inhalation : Shortness of breath. May cause cancer by inhalation.

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.

Symptoms/effects after eye contact	:	May cause slight eye irritation . Inflammation/damage of the eye tissue. Irritation of the eye tissue. Redness of the eye tissue.
Symptoms/effects after ingestion	:	Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Ethylene Glycol (107-21-1)	
LC50 - Fish [1]	> 72860 mg/l (EPA 600/4-90/027, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, Daphnia magna, Static system, Fresh water, Experimental value)

2-Aminoethanol (141-43-5)	
LC50 - Fish [1]	349 mg/l (EU Method C.1, 96 h, Cyprinus carpio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	27 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
ErC50 algae	2.8 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

Methanol (67-56-1)	
LC50 - Fish [1]	15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)

Benzene (71-43-2)	
LC50 - Fish [1]	5.3 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	10 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

Acetone (67-64-1)	
LC50 - Fish [1]	6210 mg/l (96 h; Pimephales promelas; Nominal concentration)
EC50 - Crustacea [1]	8800 mg/l (48 h; Daphnia pulex)
LC50 - Fish [2]	5540 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
TLM - Fish [1]	13000 ppm (96 h; Gambusia affinis; Turbulent water)
TLM - Fish [2]	> 1000 ppm (96 h; Pisces)
Threshold limit - Other aquatic organisms [1]	3000 mg/l (Plankton)
Threshold limit - Other aquatic organisms [2]	28 mg/l (Protozoa)
Threshold limit - Algae [1]	7500 mg/l (Scenedesmus quadricauda; pH = 7)
Threshold limit - Algae [2]	3400 mg/l (48 h; Chlorella sp.)

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)	
LC50 - Fish [1]	35 mg/l (96 h, Salmo gairdneri, Literature study, Lethal)

12.2. Persistence and degradability

PRIME GUARD DE-ICER 11.5 OZ.	
Persistence and degradability	Not established.

Ethylene Glycol (107-21-1)	
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.47 g O_2/g substance
Chemical oxygen demand (COD)	1.24 g O_2/g substance
ThOD	1.29 g O_2/g substance

Water (7732-18-5)	
Persistence and degradability	Not established.

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)	
Persistence and degradability	Not established.

2-Aminoethanol (141-43-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Not established.
Biochemical oxygen demand (BOD)	0.8 g O_2/g substance
Chemical oxygen demand (COD)	1.34 g O_2/g substance
ThOD	2.49 g O_2/g substance

Methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water. Not established.
Biochemical oxygen demand (BOD)	0.6 – 1.12 g O_2/g substance
Chemical oxygen demand (COD)	1.42 g O_2/g substance
ThOD	1.5 g O_2/g substance

Benzene (71-43-2)	
Persistence and degradability	Readily biodegradable in water. Ozonation in water. Forming sediments in water. Biodegradable in the soil. Low potential for adsorption in soil. Photolysis in the air. Not established.
Biochemical oxygen demand (BOD)	2.18 g O_2/g substance
Chemical oxygen demand (COD)	2.15 g O_2/g substance
ThOD	3.1 g O_2/g substance

Acetone (67-64-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available. Not established.
Biochemical oxygen demand (BOD)	1.43 g O_2/g substance
Chemical oxygen demand (COD)	1.92 g O_2/g substance
ThOD	2.2 g O_2/g substance
BOD (% of ThOD)	(20 day(s)) 0.872

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

PRIME GUARD DE-ICER 11.5 OZ.	
Bioaccumulative potential	Not established.

Ethylene Glycol (107-21-1)	
Partition coefficient n-octanol/water (Log Pow)	-1.36 (Experimental value)
Bioaccumulative potential	Not bioaccumulative.

Water (7732-18-5)	
Bioaccumulative potential	Not established.

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)	
Partition coefficient n-octanol/water (Log Pow)	-0.46
Bioaccumulative potential	Not bioaccumulative.

2-Aminoethanol (141-43-5)	
Partition coefficient n-octanol/water (Log Pow)	-2.3 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

Methanol (67-56-1)	
BCF - Fish [1]	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

Benzene (71-43-2)	
BCF - Fish [1]	< 10 (OECD 305: Bioconcentration: Flow-Through Fish Test, 3 day(s), Leuciscus idus, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	2.13 (Experimental value, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

Acetone (67-64-1)	
BCF - Fish [1]	0.69 (Pisces)
BCF - Other aquatic organisms [1]	3
Partition coefficient n-octanol/water (Log Pow)	-0.24 (Test data)
Bioaccumulative potential	Not bioaccumulative. Not established.

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

12.4. Mobility in soil

Ethylene Glycol (107-21-1)	
Surface tension	48.4 mN/m (20 °C)

Ethylene Glycol (107-21-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Highly mobile in soil.

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)	
Ecology - soil	No (test)data on mobility of the component(s) available.

2-Aminoethanol (141-43-5)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.16 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

Methanol (67-56-1)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.89 – -0.21 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

Benzene (71-43-2)	
Surface tension	29 mN/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.848 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Highly mobile in soil.

Acetone (67-64-1)	
Surface tension	0.0237 N/m (20 °C)

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)	
Ecology - soil	Not applicable (gas).

12.5. Other adverse effects

Effect on global warming : No known effects from this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Container under pressure. Do not drill or burn even after use. Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

Additional information : Handle empty containers with care because residual vapors are flammable. Flammable vapors may accumulate in the container.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

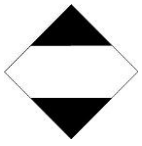
US DOT (ground) (DOT) : UN1950 Aerosols (Flammable, (each not exceeding 1 L capacity)), 2.1, Limited Quantity

UN-No.(DOT) : UN1950

Proper Shipping Name (DOT) : Aerosols
Flammable, (each not exceeding 1 L capacity)

Class (DOT) : 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115

Hazard labels (DOT) : LTD QTY - Limited quantity



DOT Packaging Non Bulk (49 CFR 173.xxx) : None

DOT Packaging Bulk (49 CFR 173.xxx) : None

DOT Special Provisions (49 CFR 172.102) : N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.

DOT Packaging Exceptions (49 CFR 173.xxx) : 306

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	150 kg
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	:	48 - Stow ‘‘away from’’ sources of heat,87 - Stow ‘‘separated from’’ Class 1 (explosives) except Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials
Other information	:	No supplementary information available.

Transport by sea

UN-No. (IMDG)	:	1950
Proper Shipping Name (IMDG)	:	Aerosols
Class (IMDG)	:	2.1 - Flammable gases

Air transport

UN-No. (IATA)	:	1950
Proper Shipping Name (IATA)	:	Aerosols
Class (IATA)	:	2.1 - Gases : Flammable

SECTION 15: Regulatory information

15.1. US Federal regulations

PRIME GUARD DE-ICER 11.5 OZ.	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard Sudden release of pressure hazard

Ethylene Glycol (107-21-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	1 %

Water (7732-18-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

2-Aminoethanol (141-43-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

Methanol (67-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard
SARA Section 313 - Emission Reporting	1 %

Benzene (71-43-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	10 lb
SARA Section 313 - Emission Reporting	1 %

Acetone (67-64-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

Acetone (67-64-1)	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Delayed (chronic) health hazard

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Sudden release of pressure hazard Immediate (acute) health hazard

15.2. International regulations

CANADA

PRIME GUARD DE-ICER 11.5 OZ.	
WHMIS Classification	Class B Division 5 - Flammable Aerosol

Ethylene Glycol (107-21-1)
Listed on the Canadian DSL (Domestic Substances List)

Water (7732-18-5)
Listed on the Canadian DSL (Domestic Substances List)

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)
Listed on the Canadian DSL (Domestic Substances List)

2-Aminoethanol (141-43-5)
Listed on the Canadian DSL (Domestic Substances List)

Methanol (67-56-1)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Benzene (71-43-2)
Listed on the Canadian DSL (Domestic Substances List)

Acetone (67-64-1)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Water (7732-18-5)

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)

2-Aminoethanol (141-43-5)

Methanol (67-56-1)

Benzene (71-43-2)

Acetone (67-64-1)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- Directive 79/831/EEC, sixth Amendment of Directive 67/548/EEC (dangerous substances) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

15.2.2. National regulations

Ethylene Glycol (107-21-1)
Listed on EPA Hazardous Air Pollutant (HAPS)

Water (7732-18-5)

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)

2-Aminoethanol (141-43-5)

Methanol (67-56-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

Benzene (71-43-2)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

Acetone (67-64-1)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)

15.3. US State regulations

PRIME GUARD DE-ICER 11.5 OZ.()	
U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	Yes
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Yes
State or local regulations	U.S. - California - Proposition 65

Ethylene Glycol (107-21-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	

Water (7732-18-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Sodium-2(3H)-Benzothiazolethione, Conc=50%, Aqueous Solution (2492-26-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

2-Aminoethanol (141-43-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Methanol (67-56-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	

Benzene (71-43-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)

Benzene (71-43-2)				
Yes	Yes	No	Yes	

Acetone (67-64-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	Yes	

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Ethylene Glycol (107-21-1)

State or local regulations

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. – New York City – Right to Know Hazardous Substances List
U.S. - Pennsylvania - RTK (Right to Know) List

2-Aminoethanol (141-43-5)

State or local regulations

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. – New York City – Right to Know Hazardous Substances List
U.S. - Pennsylvania - RTK (Right to Know) List

Methanol (67-56-1)

State or local regulations

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. – New York City – Right to Know Hazardous Substances List

Benzene (71-43-2)

State or local regulations

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. – New York City – Right to Know Hazardous Substances List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - West Virginia - Air Quality - Toxic Air Pollutant Emission Limits

Acetone (67-64-1)

State or local regulations

U.S. - California - Proposition 65
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)

State or local regulations

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. – New York City – Right to Know Hazardous Substances List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Other information : None.

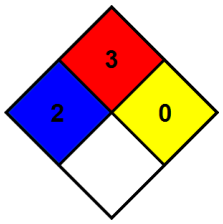
Full text of H-phrases:

H223	Flammable aerosol
H225	Highly flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H290	May be corrosive to metals
H300	Fatal if swallowed
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard

Physical : 1 Slight Hazard

Personal protection : B

The Supplier identified in Section 1 of this SDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product

Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.