

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

1.1. Product identifier

Product form	: Mixture
Product name	: DefendAL Universal Antifreeze/Coolant
Synonyms	: DefendAL Universal Antifreeze/Coolant Concentrate – 2-9025 DefendAL Universal Antifreeze/Coolant 50/50 – 2-9026 DefendAL Universal Antifreeze/Coolant 30/70 – 2-9068 DefendAL Universal Antifreeze/Coolant 60/40 – 2-9063

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

Use of the substance/mixture	: Coolant. Antifreeze.
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1.3. Details of the supplier of the safety data sheet

KOST USA, Inc.
1000 Tennessee Ave.
Cincinnati, 45229 - USA
T 1-800-661-9391 - F 1-513-492-5555
sales@kostusa.com - www.kostusa.com

1.4. Emergency telephone number

Emergency number	: 1-800-424-9300 CHEMTREC (24 HOURS)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Oral) H302
Skin Sens. 1 H317
STOT RE 2 H373

Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US)	: Warning
Hazard statements (GHS-US)	: H302 - Harmful if swallowed H317 - May cause an allergic skin reaction H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary statements (GHS-US)	: P260 - Do not breathe mist, spray, vapours P264 - Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product P272 - Contaminated work clothing must not be allowed out of the workplace P280 - Wear eye protection, protective gloves P301+P312 - If swallowed: Call a doctor if you feel unwell P302+P352 - If on skin: Wash with plenty of water P314 - Get medical advice/attention if you feel unwell P321 - Specific treatment (see First aid measures on this label) P330 - Rinse mouth P333+P313 - If skin irritation or rash occurs: Get medical advice/attention P362+P364 - Take off contaminated clothing and wash it before reuse P501 - Dispose of contents/container to an authorised waste collection point

2.3. Other hazards

No additional information available

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2.4. Unknown acute toxicity (GHS US)

0.2 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Ethylene glycol	(CAS No) 107-21-1	30 – 90	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Diethylene glycol	(CAS No) 111-46-6	0 – 10	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
sodium nitrite	(CAS No) 7632-00-0	0.01 – 1	Ox. Sol. 3, H272 Acute Tox. 3 (Oral), H301 Aquatic Acute 1, H400
disodium tetraborate, anhydrous	(CAS No) 1330-43-4	0.01 – 1	Repr. 1B, H360
sodium mercaptobenzothiazole	(CAS No) 2492-26-4	0.01 – 0.5	Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of H-statements: see section 16

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 exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel. Drink plenty of water. Immediately call a POISON CENTER or doctor/physician.

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

- Symptoms/injuries : Causes damage to organs through prolonged or repeated exposure.
- Symptoms/injuries after inhalation : Inhalation may cause: irritation, coughing, shortness of breath.
- Symptoms/injuries after skin contact : May cause an allergic skin reaction. Repeated or prolonged contact may cause skin irritation.
- Symptoms/injuries after eye contact : May cause slight irritation. Symptoms may include pain, blinking, tears and redness.
- Symptoms/injuries after ingestion : Harmful 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

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Large fires: Water fog. Water spray. Small fires: Carbon dioxide. Dry powder. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : No specific fire or explosion hazard.
- Explosion hazard : Product is not explosive.
- Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.

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Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flame resistant/retardant clothing. Wear a self contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all eye and skin contact and do not breathe vapour and mist. Danger of slipping on leaked or spilled product.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and gloves. neoprene. natural rubber gloves. Chemical goggles or safety glasses.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves. Neoprene or nitrile rubber gloves. Chemical goggles or safety glasses.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Do not allow large quantities, as are, to spread into the environment. Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Do not allow minor leaks or spills to accumulate on walking surfaces.

Methods for cleaning up : Take up in non-combustible absorbent material and shove into container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid breathing fume/mist/vapours/spray. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Handle in a well-ventilated area. Keep away from sources of ignition - No smoking. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Keep away from open flames, hot surfaces and sources of ignition. Do not store near food, foodstuffs, drugs, or potable water supplies.

Incompatible products : Strong oxidizing agents. Strong acids. Strong bases.

Incompatible materials : Sources of ignition.

7.3. Specific end use(s)

Coolant. Antifreeze.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DefendAL Universal Antifreeze/Coolant		
ACGIH	Not applicable	
OSHA	Not applicable	
Ethylene glycol (107-21-1)		
ACGIH	ACGIH Ceiling (ppm)	39.4 ppm
ACGIH	Remark (ACGIH)	URT & eye irr
OSHA	Not applicable	
Diethylene glycol (111-46-6)		
ACGIH	Not applicable	

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Diethylene glycol (111-46-6)		
OSHA	Not applicable	

sodium nitrite (7632-00-0)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ as dust
OSHA	Not applicable	

disodium tetraborate, anhydrous (1330-43-4)		
ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³
ACGIH	ACGIH STEL (mg/m ³)	6 mg/m ³
ACGIH	Remark (ACGIH)	Varies URT irr
OSHA	OSHA PEL (TWA) (mg/m ³)	10 mg/m ³ 8 hours

sodium mercaptobenzothiazole (2492-26-4)		
ACGIH	Not applicable	
OSHA	Not applicable	

8.2. Exposure controls

Appropriate engineering controls	: Avoid creating mist or spray. Avoid splashing. Provide local exhaust ventilation of closed transfer systems to minimize exposures.
Hand protection	: Wear suitable gloves resistant to chemical penetration. neoprene/natural rubber.
Eye protection	: In case of splashing or aerosol production: protective goggles. Chemical goggles or face shield.
Skin and body protection	: Wear suitable protective clothing. Impervious clothing. Use safety shoes resistant to chemical products.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Use an approved respirator equipped with oil/mist cartridges.
Consumer exposure controls	: Avoid contact during pregnancy/while nursing.
Other information	: Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Green
Odour	: characteristic
Odour threshold	: No data available
pH	: 10.5
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: -13 (-52 - -13) °C Concentrate; -38°C 50/50; -16°C 30/70; -52°C 60/40
Freezing point	: -13 °C Concentrate; -38°C 50/50; -16°C 30/70; -52°C 60/40
Boiling point	: > 197 (104 - 197) °C Concentrate; >107°C 50/50; 104°C 30/70; 111°C 60/40
Flash point	: > 116 °C Concentrate; Not established - 50/50, 30/70, 40/60
Auto-ignition temperature	: 427 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0.1 mm Hg (@ 20°C)
Relative vapour density at 20 °C	: > 1 Concentrate
Relative density	: 1.047 - 1.118 Specific Gravity: 1.118 Concentrate, 1.072 50/50, 1.047 30/70, 1.109 60/40 (@ 20°C)
Solubility	: Material highly soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.

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Oxidising properties : No oxidizing properties.
Explosive limits : 3.2 vol %
Not determined

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Exposure to extremely high temperatures.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Nitrogen oxides. Aldehydes. alcohols. Ethers. ammonia.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

DefendAL Universal Antifreeze/Coolant	
ATE US (oral)	479.328 mg/kg bodyweight
Ethylene glycol (107-21-1)	
LD50 dermal rat	> 3500 mg/kg mouse
LC50 inhalation rat (mg/l)	> 2.5 mg/l/4h
ATE US (oral)	500.000 mg/kg bodyweight
Diethylene glycol (111-46-6)	
LD50 dermal rat	13300 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/l/4h
ATE US (oral)	500.000 mg/kg bodyweight
ATE US (dermal)	13300.000 mg/kg bodyweight
sodium nitrite (7632-00-0)	
LD50 oral rat	180 mg/kg
ATE US (oral)	180.000 mg/kg bodyweight
disodium tetraborate, anhydrous (1330-43-4)	
LD50 oral rat	3450 mg/kg male
LD50 dermal rabbit	> 2000 mg/kg no deaths occurred
LC50 inhalation rat (mg/l)	> 2.03 mg/l 5h - no deaths occurred
ATE US (oral)	3450.000 mg/kg bodyweight
sodium mercaptobenzothiazole (2492-26-4)	
LD50 oral rat	2100 mg/kg male
LD50 dermal rabbit	> 7940 mg/kg New Zealand White Rabbit
ATE US (oral)	2100.000 mg/kg bodyweight
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Ethylene glycol (107-21-1)	
IARC group	Not listed in carcinogenicity class

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Reproductive toxicity	: Not classified.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.

Ethylene glycol (107-21-1)	
LOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day kidney

disodium tetraborate, anhydrous (1330-43-4)	
LOAEL (oral, rat, 90 days)	58.5 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	17.5 mg/kg bodyweight/day

Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Inhalation may cause: irritation, coughing, shortness of breath.
Symptoms/injuries after skin contact	: May cause an allergic skin reaction. Repeated or prolonged contact may cause skin irritation.
Symptoms/injuries after eye contact	: May cause slight irritation. Symptoms may include pain, blinking, tears and redness.
Symptoms/injuries after ingestion	: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
Likely routes of exposure	: Skin and eye contact;Inhalation;Ingestion

SECTION 12: Ecological information

12.1. Toxicity

Ethylene glycol (107-21-1)	
LC50 fish 1	72860 mg/l Pimephales promelas
EC50 Daphnia 1	> 100 mg/l
NOEC chronic fish	15380 mg/l Pimephales promelas
NOEC chronic crustacea	8590 mg/l Ceriodaphnia sp.

Diethylene glycol (111-46-6)	
LC50 fish 1	75200 mg/l
EC50 Daphnia 1	> 10000 mg/l

sodium nitrite (7632-00-0)	
LC50 fish 1	0.11 mg/l

disodium tetraborate, anhydrous (1330-43-4)	
LC50 fish 1	74 mg/l 96h Limanda limanda

sodium mercaptobenzothiazole (2492-26-4)	
LC50 fish 1	1.87 mg/l 96h

12.2. Persistence and degradability

Ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable.

Diethylene glycol (111-46-6)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

DefendAL Universal Antifreeze/Coolant	
Bioaccumulative potential	Does not bioaccumulate significantly.

Ethylene glycol (107-21-1)	
Log Pow	- 1.36
Bioaccumulative potential	Not expected to bioaccumulate.

Diethylene glycol (111-46-6)	
Bioconcentration factor (BCF REACH)	100
Log Pow	-1.98
Bioaccumulative potential	Not expected to bioaccumulate.

sodium mercaptobenzothiazole (2492-26-4)	
Log Pow	2.42

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12.4. Mobility in soil

DefendAL Universal Antifreeze/Coolant	
Ecology - soil	Dissolves in water. If products enter soil, will be highly mobile and may contaminate ground water.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: In its present state, this product is not a hazardous waste according to Federal Regulations (40 CFR 261.4 (b)(4)). Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care. Container contents should be completely used and containers should be emptied prior to discard. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner.

SECTION 14: Transport information

In accordance with DOT

Non-bulk:

Not a dangerous good

Bulk:

Concentrate RQ \geq 5,701 lbs

50/50 RQ \geq 10,869 lbs

30/70 RQ \geq 15,384 lbs

40/60 RQ \geq 9,505 lbs

Transport document description	: RQ UN3082 Environmentally hazardous substances, liquid, n.o.s. (Ethylene Glycol), 9, III
UN-No.(DOT)	: UN3082
Proper Shipping Name (DOT)	: Environmentally hazardous substances, liquid, n.o.s. (Ethylene Glycol)
Transport hazard class(es) (DOT)	: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Hazard labels (DOT)	: 9 - Class 9 (Miscellaneous dangerous materials)



DOT Symbols	: G - Identifies PSN requiring a technical name
Packing group (DOT)	: III - Minor Danger

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

DefendAL Universal Antifreeze/Coolant	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	30-100%

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Ethylene glycol (107-21-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
SARA Section 313 - Emission Reporting	>95%
Diethylene glycol (111-46-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
sodium nitrite (7632-00-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Disodium tetraborate, anhydrous (1330-43-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
sodium mercaptobenzothiazole (2492-26-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

Ethylene glycol (107-21-1)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
Diethylene glycol (111-46-6)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
sodium nitrite (7632-00-0)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
Disodium tetraborate, anhydrous (1330-43-4)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
sodium mercaptobenzothiazole (2492-26-4)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

EU-Regulations

Ethylene glycol (107-21-1)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Diethylene glycol (111-46-6)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
sodium nitrite (7632-00-0)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Disodium tetraborate, anhydrous (1330-43-4)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
sodium mercaptobenzothiazole (2492-26-4)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	

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

Acute Tox. 4 (Oral) H302

STOT RE 2 H373

Full text of classification categories and H statements : see section 16

15.2.2. National regulations

Ethylene glycol (107-21-1)	
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory	
Listed on the AICS (Australian Inventory of Chemical Substances)	
Listed on Taiwan National Chemical Inventory	
Listed on NZIoC (New Zealand Inventory of Chemicals)	
Listed on KECI (Korean Existing Chemicals Inventory)	
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)	
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)	

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Diethylene glycol (111-46-6)

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

sodium nitrite (7632-00-0)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on Taiwan National Chemical Inventory
Listed on KECI (Korean Existing Chemicals Inventory)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Chinese Catalog of Hazardous Chemicals.

Disodium tetraborate, anhydrous (1330-43-4)

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

sodium mercaptobenzothiazole (2492-26-4)

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

15.3. US State regulations

Ethylene glycol (107-21-1)

U.S. - Minnesota - Hazardous Substance List
U.S. - Pennsylvania - List of Hazardous Substances
U.S. - New Jersey - Right to Know Hazardous Substance List

sodium nitrite (7632-00-0)

U.S. - Pennsylvania - List of Hazardous Substances
U.S. - New York - Right to Know List of Hazardous Chemicals
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

Disclaimer :

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

End-use applications **NOT** supported by Kost USA, Inc. for monoethylene glycol, diethylene glycol and triethylene glycol. These limitations include products restricted by law, applications in which may raise unacceptable risks, and other applications which Kost USA, Inc. has decided not to, including minimizing unnecessary risk and liabilities to the company. Kost USA, Inc. does not knowingly market these products into these non-supported applications. This list is not all-inclusive, and Kost USA, Inc. reserves the right to modify the same at any time.

- The use of production of tobacco and in the manufacture of tobacco products (including but not limited to additives, humectants, filters, inks, and paper)
- The use for the generation of artificial smoke / theatrical fogs / mist. This includes applications such as artificial / e-cigarettes.
- The use as ingredient in fuel for warming foods (Sterno™-like application) or in fuel for heating an enclosed space where human exposure is possible.
- The use in fire extinguishing sprinkler systems.
- The use in the manufacture of munitions.

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- The use in the production of de-icers for use on roadways, sidewalks and in aircraft lavatories.
- The use as a component of heat transfer fluids in systems where the heat transfer fluids could infiltrate (i.e., via an exchanger leak, backflow prevention failure, or other means) a potable water.
- The use as a non-reacted component in a formulation for direct internal or external human / animal contact, including, but not limited to ingestion, inhalation, and skin contact and in medical / veterinary devices and medical / veterinary. Examples of some such applications are uses as a direct component in foods, beverages, pharmaceuticals, cosmetics, personal care products or children's products.
- The use for consumer or hospital usage for deodorizing or air "purifying" purposes by spraying as an aerosol.
- The use as a non-reacted component in adhesives, plasticizers, and softening agents for packaging having direct contact with food or beverage.
- The use as a non-reacted component in the formulation of glues, pastes, ice / heat packs or other items where the potential for significant human contact and/or ingestion exists (including but not limited to children's school glue/paste or arts/craft glue/paste, toys, children products).
- The use as a fluid for pressure testing piping.

For more information contact your Kost USA, Inc. representative.

Indication of changes	: Transport information
Revision date	: 07/14/2015
Data sources	: ACGIH 2000. European Chemicals Agency (ECHA) Registered Substances list. Accessed at http://echa.europa.eu/ . Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition. OSHA 29CFR 1910.1200 Hazard Communication Standard. TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html .
Abbreviations and acronyms	: ACGIH (American Conference of Government Industrial Hygienists). ATE: Acute Toxicity Estimate. ATE: Acute Toxicity Estimate. CAS (Chemical Abstracts Service) number. CLP: Classification, Labelling, Packaging. EC50: Environmental Concentration associated with a response by 50% of the test population. GHS: Globally Harmonized System (of Classification and Labeling of Chemicals). LD50: Lethal Dose for 50% of the test population. OSHA: Occupational Safety & Health Administration. TSCA: Toxic Substances Control Act. STEL: Short Term Exposure Limits. TWA: Time Weight Average.
Other information	: None.

DefendAL Universal Antifreeze/Coolant

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-statements:

Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Ox. Sol. 3	Oxidising Solids, Category 3
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Sensitisation — Skin, category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H272	May intensify fire; oxidiser
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard

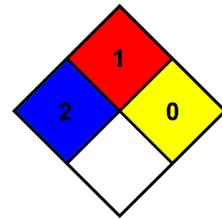
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



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