

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

1.1. Product identifier

Product form : Mixture
Product name. : DefendAL Heavy Duty Extended Life Coolant/Antifreeze Concentrate

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

Use of the substance/mixture : Antifreeze. Coolant.
Uses advised against : See Section 16.

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)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Oral) H302
Skin Irrit. 2 H315
Eye Irrit. 2A H319
Repr. 2 H361
STOT RE 2 H373

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe mist/vapours/spray
P264 - Wash hands 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+P312 - If swallowed, call a doctor if you feel unwell
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
P308+P313 - IF exposed or concerned: Get medical advice/attention
P314 - Get medical advice and attention if you feel unwell
P321 - Specific treatment (see Section 4 on this label)
P330 - If swallowed, rinse mouth
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P405 - Store locked up

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P501 - Dispose of contents/container in accordance with local and national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Components with health hazards above the applicable thresholds are shown. Exact concentrations withheld as trade secret.

Full text of H-phrases: see section 16

Name	Product identifier	%	GHS-US classification
Ethylene glycol	(CAS No) 107-21-1	90 - 95	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
sodium 2-ethylhexanoate	(CAS No) 19766-89-3	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361
Diethylene glycol	(CAS No) 111-46-6	0 - 3	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Sodium hydroxide	(CAS No) 1310-73-2	0.1 - 1	Skin Corr. 1A, H314
sodium tolyltriazole	(CAS No) 64665-57-2	0 - 0.5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Chronic 2, H411
sodium nitrite	(CAS No) 7632-00-0	0 - 0.5	Ox. Sol. 3, H272 Acute Tox. 3 (Oral), H301 Aquatic Acute 1, H400
sodium 1H-benzotriazolide	(CAS No) 15217-42-2	0 - 0.5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Chronic 2, H411

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

:

First-aid measures after inhalation

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after skin contact

: If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after eye contact

: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after ingestion

: 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.

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

Rinse mouth. Call a POISON CENTER/doctor/physician if you feel unwell.

Symptoms/injuries

: Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

In high concentrations : Inhalation may cause: irritation, coughing, shortness of breath.

Symptoms/injuries after inhalation

: Causes skin irritation.

Symptoms/injuries after skin contact

: Causes serious eye irritation.

Symptoms/injuries after eye contact

: Swallowing a small quantity of this material will result in serious health hazard. Harmful if

Symptoms/injuries after ingestion

: swallowed.

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

: Carbon dioxide. Dry powder. Foam. Sand. Water spray.

Unsuitable extinguishing media

: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard

: No specific fire or explosion hazard.

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Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.

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 eyes and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses. protective gloves. In case of inadequate ventilation wear respiratory protection.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses. Neoprene or nitrile rubber gloves. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

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.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. 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 : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist, spray, vapours.

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.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool well ventilated place.

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

Incompatible materials : Heat sources. Direct sunlight.

7.3. Specific end use(s)

Antifreeze. Coolant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

All applicable exposure limit values are shown.

Ethylene glycol (107-21-1)		
USA ACGIH	ACGIH Ceiling (mg/m ³)	100 mg/m ³
USA ACGIH	ACGIH Ceiling (ppm)	39.4 ppm
USA ACGIH	Remark (ACGIH)	URT & eye irr
sodium nitrite (7632-00-0)		
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ as dust
Sodium hydroxide (1310-73-2)		
USA ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³
USA ACGIH	Remark (ACGIH)	URT, eye, & skin irr

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Sodium hydroxide (1310-73-2)		
USA OSHA	OSHA PEL (TWA) (mg/m3)	2 mg/m ³

8.2. Exposure controls

Appropriate engineering controls	: Avoid creating mist or spray. Avoid splashing. Eyewash stations. Either local exhaust or general room ventilation is usually required.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear suitable gloves. Impermeable protective nitrile gloves.
Eye protection	: Chemical goggles or safety glasses.
Skin and body protection	: Wear suitable protective clothing. Impervious clothing.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Use an approved respirator equipped with oil/mist cartridges.
Consumer exposure controls	: Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Free & clear.
Colour	: Red.
Odour	: No data available
Odour threshold	: No data available
pH	: 8.2 – 8.8
Relative evaporation rate (butylacetate=1)	: No data available
Melting / Freezing point	: -40 °C - -36.4 °C
Boiling point	: > 197 °C
Flash point	: 116 °C
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Specific Gravity @ 20 °C	: 1.12
Density	: 9.364 @ 15.6 °C
Solubility	: No data available
Log Pow	: No data available
Viscosity	: No data available
Explosive limits	: No data available

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 at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid excessive heat or cold. Keep away from sources of ignition.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

DefendAL Heavy Duty Extended Life Coolant/Antifreeze Concentrate

ATE (oral) 500.000 mg/kg bodyweight

Ethylene glycol (107-21-1)

LD50 oral rat	7712 mg/kg
LD50 dermal rat	> 3500 mg/kg mouse
LC50 inhalation rat (mg/l)	> 2.5 mg/l/4h
ATE (oral)	500.000 mg/kg bodyweight

Diethylene glycol (111-46-6)

LD50 oral rat	19600 mg/kg
LD50 dermal rat	13300 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/l/4h
ATE (oral)	500.000 mg/kg bodyweight
ATE (dermal)	13300.000 mg/kg bodyweight

sodium nitrite (7632-00-0)

LD50 oral rat 180 mg/kg
ATE (oral) 180.000 mg/kg bodyweight

sodium tolyltriazole (64665-57-2)

LD50 oral rat	735 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight
ATE (oral)	735.000 mg/kg bodyweight

sodium 1H-benzotriazolide (15217-42-2)

LD50 oral rat 338 (300 - 2000) mg/kg
ATE (oral) 338.000 mg/kg bodyweight
Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Suspected of damaging fertility or the unborn child.
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)

NOAEL (oral,rat,90 days) 150 mg/kg bodyweight/day kidney

Aspiration hazard : Not classified
Symptoms/injuries after inhalation : In high concentrations : Inhalation may cause: irritation, coughing, shortness of breath.
Symptoms/injuries after skin contact : Causes skin irritation.
Symptoms/injuries after eye contact : Causes serious eye irritation.
Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.
Likely routes of exposure : Skin and eyes contact.;Inhalation

SECTION 12: Ecological information

12.1. Toxicity

Ethylene glycol (107-21-1)

LC50 fishes 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.

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

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

sodium tolyltriazole (64665-57-2)	
LC50 fishes 1	55 mg/l
EC50 Daphnia 1	15.8 mg/l

sodium 1H-benzotriazolide (15217-42-2)	
LC50 fishes 1	75 mg/l 96 h
LOEC (acute)	10.25 mg/l 96 h
NOEC (acute)	5.13 mg/l 96 h

sodium 2-ethylhexanoate (19766-89-3)	
LC50 fishes 1	> 100 mg/l 96 h

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.

sodium tolyltriazole (64665-57-2)	
Biodegradation	4 % O2 consumption; 28 days

sodium 1H-benzotriazolide (15217-42-2)	
Persistence and degradability	Not rapidly degradable. Not readily biodegradable.
Biodegradation	0.8 % 30 days; read-across benzotriazole

12.3. Bioaccumulative potential

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 tolyltriazole (64665-57-2)	
Log Pow	1.083

sodium 1H-benzotriazolide (15217-42-2)	
Log Pow	0.408

sodium 2-ethylhexanoate (19766-89-3)	
Log Pow	1.3

12.4. Mobility in soil

No additional information available

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.

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SECTION 14: Transport information

In accordance with DOT

Not considered a dangerous good for transport regulations

Additional information

Other information : No supplementary information available.

ADR

Transport document description : Not applicable

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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	

Sodium hydroxide (1310-73-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb

sodium tolyltriazole (64665-57-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

sodium 1H-benzotriazolide (15217-42-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

sodium 2-ethylhexanoate (19766-89-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

DefendAL Heavy Duty Extended Life Coolant/Antifreeze Concentrate

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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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.	

Sodium hydroxide (1310-73-2)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

sodium tolyltriazole (64665-57-2)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

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sodium 1H-benzotriazolide (15217-42-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

sodium 2-ethylhexanoate (19766-89-3)

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) substances.

Diethylene glycol (111-46-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

sodium nitrite (7632-00-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Sodium hydroxide (1310-73-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

sodium tolyltriazole (64665-57-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

sodium 1H-benzotriazolide (15217-42-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

sodium 2-ethylhexanoate (19766-89-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

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

Acute Tox. 4 (Oral) H302
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Repr. 2 H361
STOT RE 2 H373

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R22
Xi; R36/38

15.2.2. National regulations

Ethylene glycol (107-21-1)

Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the AICS (the Australian Inventory of Chemical Substances).
Listed on Taiwan National Chemical Inventory
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on KECI (Chemical Inventory of Korea)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Diethylene glycol (111-46-6)

Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the AICS (the Australian Inventory of Chemical Substances).
Listed on Taiwan National Chemical Inventory
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on KECI (Chemical Inventory of Korea)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

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sodium nitrite (7632-00-0)

Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on Taiwan National Chemical Inventory
Listed on KECI (Chemical Inventory of Korea)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on the AICS (the Australian Inventory of Chemical Substances).
Listed on the Chinese Catalog of Hazardous Chemicals.

Sodium hydroxide (1310-73-2)

Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Chinese Catalog of Hazardous Chemicals.
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on KECI (Chemical Inventory of Korea)
Listed on Taiwan National Chemical Inventory
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Listed on the AICS (the Australian Inventory of Chemical Substances).
Listed on New Zealand - Inventory of Chemicals (NZIoC)

sodium tolyltriazole (64665-57-2)

Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on KECI (Chemical Inventory of Korea)
Listed on Taiwan National Chemical Inventory
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on the AICS (the Australian Inventory of Chemical Substances).

sodium 1H-benzotriazolide (15217-42-2)

Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on KECI (Chemical Inventory of Korea)
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Taiwan National Chemical Inventory
Listed on the AICS (the Australian Inventory of Chemical Substances).
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.

sodium 2-ethylhexanoate (19766-89-3)

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

15.3. US State regulations

sodium 2-ethylhexanoate (19766-89-3)

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 significance risk level (NSRL)
No	Yes	No	No	No

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.

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- 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.
- 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 medial / 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 : Original Document.

Data sources : ESIS (European chemical Substances Information System; accessed at: <http://esis.jrc.ec.europa.eu/index.php?PGM=cla>. 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. 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. STEL: Short Term Exposure Limits. TSCA: Toxic Substances Control Act. TWA: Time Weight Average.

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Ox. Sol. 3	Oxidising solids Category 3
Repr. 2	Reproductive toxicity Category 2
Skin Corr. 1A	skin corrosion/irritation Category 1A
Skin Corr. 1B	skin corrosion/irritation Category 1B
Skin Irrit. 2	skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H272	May intensify fire; oxidizer

Safety Data Sheet

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

H301	Toxic if swallowed
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard

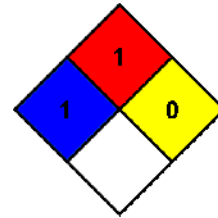
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

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.



SDS US (GHS HazCom 2012)

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