

1. Identification

Product identifier	ES COMPLEAT OAT CONCENTRATE
Other means of identification	
SDS number	LT3613400
Product code	CC3607300 (1 gallon / 3.785 L); CC3607200 (55 gallon / 208 L Drum); CC3607100 / CC3607000JX (275 gallon / 1040 L Tote tanks); CC3607000 (Bulk)
Recommended use	Concentrated antifreeze / coolant with corrosion inhibitors, for use in all heavy duty and light duty diesel and gas engines.
Recommended restrictions	No restrictions on use known.
Chemical family	Mixture of: glycol; Carboxylic acid; Sodium salts; Bases
Manufacturer	
Company name	Cummins Filtration
Address	1200 Fleetguard Road Cookeville, TN, U.S.A. 38506
Telephone	(931) 526 9551
Website	www.cumminsfiltration.com
E-Mail	fleetmaster.us@cummins.com
Supplier information	Refer to Manufacturer
Emergency phone number	Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).

2. Hazard(s) Identification

This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012).

Physical hazards	This mixture does not meet the classification criteria according to OSHA Hazcom 2012.
Health hazards	Acute toxicity - Category 4 (Oral) Reproductive Toxicity - Category 2 (Developmental) Specific target organ toxicity - single exposure - Category 2 Specific target organ toxicity - single exposure - Category 3 (Narcotic effects)
Environmental hazards	Not currently regulated by OSHA, refer to Section 12 for additional information.
OSHA defined hazards	This mixture does not meet the classification criteria according to OSHA Hazcom 2012.

Label elements



Signal Word	WARNING!
Hazard statement(s)	Harmful if swallowed. Suspected of damaging the unborn child. May cause drowsiness or dizziness. May cause damage to the kidneys if swallowed.
Precautionary statement(s)	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapors. Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/clothing and eye/face protection.
Response	If exposed: Call a POISON CENTER or doctor/physician. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local regulation.

Hazard(s) not otherwise Classified (HNOC)

No OSHA defined hazard classes.

Other hazards which do not result in classification:

Toxic fumes, gases or vapors may evolve on burning. Direct eye contact may cause slight or mild, transient irritation. May be mildly irritating to skin and respiratory system. Prolonged overexposure may cause slight liver effects, such as increased organ weights.

Supplemental Information

Avoid contact with eyes, skin and clothing. Keep away from extreme heat and direct flame. Keep away from incompatibles.

Spills and leaks: Wear suitable protective equipment. Contain and absorb spilled material with inert, non-combustible absorbent material, such as sand. Pick up and transfer to properly labelled containers. Prevent product from entering drains, sewers, waterways and soil.

3. Composition/information on ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	Concentration (%)
Ethylene glycol	Caustic soda Sodium hydrate soda lye	107-21-1	85.0 - 95.0
Disodium sebacate	Sebacic acid, disodium salt	17265-14-4	1.0 - 4.0
Sodium benzoate	Caustic soda Sodium hydrate soda lye	532-32-1	1.0 - 4.0
Sodium nitrate	Nitrate of soda Sodium saltpeter	7631-99-4	1.0 - 3.0
Sodium tolytriazole	1H-Benzotriazole, 4(or 5)-methyl-, sodium salt	64665-57-2	0.2 - 0.5

The following precursor ingredients are present at very low levels (< 0.03%), or are no longer present, in the final product:

Sodium hydroxide	Caustic soda Sodium hydrate soda lye	1310-73-2	1.0 - 2.0
Benzoic acid	Benzenecarboxylic acid Carboxybenzene	65-85-0	2.0 - 3.0
Sebacic acid	Decanedioic acid	111-20-6	2.0 - 3.0

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

4. First-aid measures

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Immediately flush with plenty of water, while removing contaminated clothing. If irritation or symptoms develop, seek medical attention.

Eye contact

Immediately flush eye(s) with plenty of water. After initial flushing, remove any contact lenses if worn, and continue flushing for at least 5 to 10 minutes. If irritation or symptoms develop, seek medical attention.

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Most important symptoms and effects, both acute and delayed

Harmful if swallowed. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Initially, the central nervous system is stimulated, followed by depression. Could cause cyanosis (bluish discoloration of the skin due to deficient oxygenation of the blood). Could also cause convulsions, coma, respiratory arrest and death.

Suspected of damaging the unborn child. Symptoms may include late resorptions, reduced fetal body weight and external, soft tissue and skeletal defects.

May cause damage to the kidneys if swallowed. Symptoms may include abdominal pain, excess urine production followed by diminished urine production, blood in the urine, tissue death in the kidney and oxalate crystal deposition.

Direct eye contact may cause slight or mild, transient irritation. Symptoms may include redness, pain, tearing and conjunctivitis.

Direct skin contact may cause temporary redness.

Inhalation of mists or sprays may mildly irritate the upper respiratory tract and cause coughing or sneezing.

Prolonged overexposure may cause slight liver effects, such as increased organ weights.

Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General Information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media

Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Toxic fumes may be released during a fire.

Special protective equipment and precautions for fire-fighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Fire-fighting equipment/instructions

Move containers from fire area if safe to do so. Use water spray to keep containers cool. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Not flammable under normal conditions of handling. However, may ignite if exposed to extreme heat and flame.

Hazardous combustion products

Carbon oxides; formaldehyde; Metal oxides; Nitrogen oxides (NOx); Other unidentified organic compounds.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Restrict access to area until completion of clean-up. Keep all other personnel upwind and away from the spill/release. Ensure clean-up is conducted by trained personnel only. All persons dealing with the clean-up should wear the appropriate personal protective equipment. Refer to protective measures listed in sections 7 and 8.



SAFETY DATA SHEET

Methods and materials for containment and cleaning up

Ventilate the area. Stop the spill at source if it is safe to do so. Eliminate all ignition sources.

Clean-up methods - small spillage: Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand). Pick up and transfer to properly labelled containers. Never return spills in original containers for re-use. Contaminated absorbent material may pose the same hazards as the spilled product.

Clean-up methods - large spillage: Contain spilled liquid with non-combustible, inert absorbent material (e.g. sand). Remove liquid by pumps or vacuum equipment. Keep in properly labelled containers.

Notify the appropriate authorities as required. Refer to Section 13 for disposal of contaminated material.

Environmental precautions

Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Contact local authorities in case of spillage to drain/aquatic environment.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Wear suitable protective equipment during handling. Wear protective gloves/clothing and eye/face protection. Use only outdoors or in a well-ventilated area. Do not ingest. Do not breathe mist or vapors. Avoid contact with eyes, skin and clothing. Keep away from extreme heat and flame. Keep away from acids and other incompatibles. Use caution when opening cap. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapor) and can be dangerous. Wash thoroughly after handling. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Store away from areas of excessive heat, open flames, sparks, and other possible sources of ignition. Keep away from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Store locked up. Keep out of the reach of children. Do not store near any incompatible materials (see Section 10).

8. Exposure controls/personal protection

Occupational exposure limits

U.S. OSHA Exposure Limits (29 CFR 1910)

	Type	Value
sodium hydroxide (CAS 1310-73-2)	TWA	2 mg/m ³

US. ACGIH Threshold Limit Values

	Type	Value
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m ³ (aerosol)
sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

	Type	Value
Ethylene glycol (CAS 107-21-1)	Ceiling	50 ppm
sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Use only outdoors or in a well-ventilated area. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye / face protection

Chemical splash goggles are recommended. A full face shield may also be necessary.

Skin protection

Hand protection

Wear protective gloves. Advice should be sought from glove suppliers.

Other

Wear protective clothing to cover as much of the exposed skin area as possible. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact.

Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection

Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Seek advice from respiratory protection specialists.

Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134).

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Do not breathe mist or vapors. Avoid contact with eyes, skin and clothing. When using do not eat or drink. When using do not smoke. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Physical state

Liquid.

Form

Thin liquid.

Color

red

Odor

Little or no odor.

Odor threshold

N/Av

pH

8.2 - 9.0

Melting point /freezing point

- 36.7 to - 44.4°C (- 34 to - 48°F)

Initial boiling point and boiling range

> 100°C (212°F) (based on ingredients)

Flash point

> 100°C (212°F) (based on ingredients)

COC

Evaporation rate

N/Av

Flammability (solid, gas)

N/Av

Lower flammability/explosive limit

N/Av

Upper flammability/explosive limit

N/Av

Vapor pressure

N/Av

Vapor density

N/Av

Relative density

1.127 - 1.157

Solubility(ies)

Other solubility(ies)

N/Av

Solubility (water)

Complete

Partition coefficient (n-octanol/water)

N/Av

Auto-ignition temperature	N/Av
Decomposition temperature	N/Av
Viscosity	N/Av
Other information	
Explosive properties	Not explosive
Oxidizing properties	None known.
Specific gravity	1.127 - 1.157
VOC	N/Av
Volatilities %	N/Av
Other physical/chemical data	No additional information.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under the recommended storage and handling conditions prescribed.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid	Avoid excessive heat, sparks and open flame. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.
Incompatible materials	Strong oxidizing agents; Strong acids; Strong alkalis; Alkali metals; Reducing agents.
Hazardous decomposition products	None known, refer to hazardous combustion products in Section 5.

11. Toxicological information

Information on likely routes of exposure

Routes of entry inhalation	Mild respiratory irritant
Routes of entry skin & eye	May cause mild skin irritation. Direct eye contact may cause slight or mild, transient irritation.
Routes of entry Ingestion	Harmful if swallowed. May cause gastrointestinal irritation. Kidney injury may occur.
Routes of exposure skin absorption	May be absorbed through the skin.

Most important symptoms/effects, acute and delayed

Harmful if swallowed. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Initially, the central nervous system is stimulated, followed by depression. Could cause cyanosis (bluish discoloration of the skin due to deficient oxygenation of the blood). Could also cause convulsions, coma, respiratory arrest and death.

Suspected of damaging the unborn child. Symptoms may include late resorptions, reduced fetal body weight and external, soft tissue and skeletal defects.

May cause damage to the kidneys if swallowed. Symptoms may include abdominal pain, excess urine production followed by diminished urine production, blood in the urine, tissue death in the kidney and oxalate crystal deposition.

Direct eye contact may cause slight or mild, transient irritation. Symptoms may include redness, pain, tearing and conjunctivitis.

Direct skin contact may cause temporary redness.

Inhalation of mists or sprays may mildly irritate the upper respiratory tract and cause coughing or sneezing.

Prolonged overexposure may cause slight liver effects, such as increased organ weights.



SAFETY DATA SHEET

Information on toxicological effects

Acute toxicity Hazardous by OSHA criteria. Classification:
Acute toxicity - Category 4. Harmful if swallowed.

The calculated ATE values for this mixture are:
ATE oral = 1133 mg/kg
ATE inhalation (mist) = 11.5 mg/L/4H

See below for individual ingredient acute toxicity data.

Components	Species	Test Results
Ethylene glycol		
Acute		
<i>Dermal</i>		
LD50	Rabbit	9530 mg/kg
<i>Inhalation</i>		
LC50	Rat	4300 ppm (10.92 mg/L) (aerosol)
<i>Oral</i>		
LD50	Rat	4000 mg/kg (rat) The estimated human lethal dose is: 1110 - 1665 mg/kg
Disodium sebacate		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg (No mortality)
<i>Inhalation</i>		
LC50	Rat	N/Av
<i>Oral</i>		
LD50	Rat	> 6000 mg/kg
Sodium benzoate		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg (No mortality) (Read-across)
<i>Inhalation</i>		
LC50	Rat	> 12.2 mg/L (dust) (No mortality) (Read-across)
<i>Oral</i>		
LD50	Rat	2100 mg/kg
Sodium nitrate		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	N/Av
<i>Oral</i>		
LD50	Rat	1267 mg/kg
Sodium tolytriazole		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg (No mortality)
<i>Inhalation</i>		
LC50	Rat	N/Av
<i>Oral</i>		
LD50	Rat	735 - 1980 mg/kg (50% solution)

The following precursor ingredients are present at very low levels (< 0.03%), or are no longer present, in the final product:

Sodium hydroxide

Acute

Dermal

LD50 Rabbit N/Av

Inhalation

LC50 Rat N/Av

Oral

LD50 Rat N/Av

Benzoic acid

Acute

Dermal

LD50 Rabbit > 5000 mg/kg

Inhalation

LC50 Rat > 12.2 mg/L (dust) (No mortality)

Oral

LD50 Rat 2360 mg/kg

Sebacic acid

Acute

Dermal

LD50 Rabbit > 2000 mg/kg (No mortality)

Inhalation

LC50 Rat N/Av

Oral

LD50 Rat 14 375 mg/kg

Skin Corrosion/Irritation	Not expected to be hazardous by OSHA criteria.
Serious eye damage/Irritation	Not expected to be hazardous by OSHA criteria.
Respiratory or skin sensitization	Not expected to be a skin or respiratory sensitizer.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not expected to be hazardous by OSHA criteria. No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP. See below for ingredients present on regulatory lists.
Reproductive toxicity	Hazardous by OSHA criteria. Classification: Reproductive toxicity - Category 2. Suspected of damaging the unborn child. Contains ethylene glycol, which may cause teratogenic effects at doses which are not maternally toxic, based on animal data.
Specific target organ toxicity - single exposure	Hazardous by OSHA criteria. Classification: Specific target organ toxicity - single exposure - Category 2. May cause damage to the kidneys if swallowed. Contains: Ethylene glycol. Ethylene glycol may cause kidney stones and kidney damage if ingested. Specific target organ toxicity - single exposure - Category 3. May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	Not expected to be hazardous by OSHA criteria.
Chronic effects	Prolonged or repeated ingestion may cause bladder or kidney stones. Prolonged overexposure may cause slight liver effects, such as increased organ weights.
Aspiration toxicity	Not expected to be hazardous by OSHA criteria.
Further information	None known or reported by the manufacturer.

12. Ecological information

Ecotoxicity

There is no data available for this product. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:				
Ingredients	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Ethylene glycol	107-21-1	22 810 mg/L (Rainbow trout)	N/Av	None.
Disodium sebacate	17265-14-4	> 100 mg/L (Zebra fish) (Read-across)	N/Av	None.
Sodium benzoate	532-32-1	484 mg/L (Fathead minnow)	N/Av	None.
Sodium nitrate	7631-99-4	1685 mg/L (Rainbow trout)	97.8 mg/L (Ocellaris clownfish)	None.
Sodium tolytriazole	64665-57-2	25 mg/L (Rainbow trout)	N/Av	None.
sodium hydroxide	1310-73-2	125 mg/L (Mosquito fish)	N/Av	None.
Benzoic acid	65-85-0	44.6 mg/L (Bluegill sunfish)	> 120 mg/L/28-day (Rainbow trout)	None.
Sebacic acid	111-20-6	> 100 mg/L (Zebra fish)	N/Av	None.

Ingredients	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Ethylene glycol	107-21-1	49 000 mg/L (Daphnia magna)	7500 - 15 000 mg/L	None.
Disodium sebacate	17265-14-4	> 100 mg/L (Daphnia magna) (Read-across)	N/Av	None.
Sodium benzoate	532-32-1	> 100 mg/L (Daphnia magna)	N/Av	None.
Sodium nitrate	7631-99-4	3581 mg/L (Daphnia magna)	N/Av	None.
Sodium tolytriazole	64665-57-2	280 mg/L (Daphnia magna)	18.4 mg/L	None.
sodium hydroxide	1310-73-2	40 mg/L (Water flea)	N/Av	None.
Benzoic acid	65-85-0	> 100 mg/L (Daphnia magna)	> 25 mg/L	None.
Sebacic acid	111-20-6	> 100 mg/L (Daphnia magna)	N/Av	None.

Ingredients	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Ethylene glycol	107-21-1	6500 - 13 000 mg/L/96hr (Green algae)	10 000 mg/L/96hr	None.
Disodium sebacate	17265-14-4	150 mg/L/96hr (Green algae) (Read-across)	N/Av	None.
Sodium benzoate	532-32-1	> 30.5 mg/L/72hr (Green algae)	N/Av	None.
Sodium nitrate	7631-99-4	N/Av	N/Av	None.
Sodium tolytriazole	64665-57-2	26.2 mg/L/72hr (Green algae)	10 mg/L/72hr	None.
sodium hydroxide	1310-73-2	N/Av	N/Av	None.
Benzoic acid	65-85-0	> 33.1 mg/L/72hr (Green algae)	0.11 mg/L/72hr	None.
Sebacic acid	111-20-6	150 mg/L/96hr (Green algae)	N/Av	None.

Persistence and degradability

No data is available on the product itself.
 The following ingredients are considered to be readily biodegradable: Ethylene glycol;
 Sodium benzoate.
 Contains the following chemicals which are not readily biodegradable: Sodium tolyltriazole.

Bioaccumulation potential

No data is available on the product itself.
 See the following data for ingredient information.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Ethylene glycol (CAS 107-21-1)	- 1.36	10 (Fish)
Sodium benzoate (CAS 532-32-1)	- 2.269	N/Av
Sodium nitrate (CAS 7631-99-4)	- 0.79	N/Av
Sodium tolyltriazole (CAS 64665-57-2)	1.083	N/Av
Benzoic acid (CAS 65-85-0)	1.93	3.162
Sebacic acid (CAS 111-20-6)	2.19	3.2

Mobility in soil

No data is available on the product itself.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal consideration

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable federal, state, territory and local regulations.

Local disposal regulations

Dispose of in accordance with local regulations.

Hazardous waste code

If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

Waste from residues / unused products

Dispose of contents/container in accordance with local regulation. Empty containers should be disposed of in accordance with the requirements of the following legislation:

Contaminated packaging

Empty containers should be taken for local recycling or waste disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

49CFR/DOT

Not regulated as dangerous goods

ICAO/IATA

Not regulated as dangerous goods

IMDG

Not regulated as dangerous goods

General information

This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See Section 12 for more environmental information.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

This information is not available.



SAFETY DATA SHEET

15. Regulatory information

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Ethylene glycol	107-21-1	Yes	5000 lb/ 2270 kg	None.	Yes	1%
Disodium sebacate	17265-14-4	Yes	None.	None.	No	N/Ap
Sodium benzoate	532-32-1	Yes	None.	None.	No	N/Ap
Sodium nitrate	7631-99-4	Yes	None.	None.	No	N/Ap
Sodium tolytriazole	64665-57-2	Yes	None.	None.	No	N/Ap
sodium hydroxide	1310-73-2	Yes	1000 lb/ 454 kg	None.	No	N/Ap
Benzoic acid	65-85-0	Yes	5000 lb/ 2270 kg	None.	No	N/Ap
Sebacic acid	111-20-6	Yes	None.	None.	No	N/Ap

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard -	Yes
	Delayed Hazard -	Yes
	Fire Hazard -	NO
	Pressure Hazard -	NO
	Reactivity Hazard -	NO

US state regulations

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Ethylene glycol	107-21-1	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Disodium sebacate	17265-14-4	No	N/Ap	No	No	No	No	No	No
Sodium benzoate	532-32-1	No	N/Ap	No	No	No	No	No	No
Sodium nitrate	7631-99-4	No	N/Ap	No	Yes	No	No	Yes	Yes
Sodium tolytriazole	64665-57-2	No	N/Ap	No	No	No	No	No	No
sodium hydroxide	1310-73-2	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Benzoic acid	65-85-0	No	N/Ap	Yes	Yes	No	Yes	Yes	No
Sebacic acid	111-20-6	No	N/Ap	No	No	No	No	No	No

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).



SAFETY DATA SHEET

International Inventories

Components listed below are present on the following International Inventory lists:

<u>Ingredients</u>	<u>CAS #</u>	<u>European EINECS</u>	<u>Australia AICS</u>	<u>Philippines PICCS</u>	<u>Japan ENCS</u>	<u>Korea KECI/KECL</u>	<u>China IECSC</u>	<u>NewZealand IOC</u>
Ethylene glycol	107-21-1	203-473-3	Present	Present	(2)-230	KE-13169	Present	HSR001534
Disodium sebacate	17265-14-4	241-300-3	Present	Present	(2)-907	KE-09416	Present	May be used as a single component chemical under an appropriate group standard
Sodium benzoate	532-32-1	208-534-8	Present	Present	(3)-1293; (3)-1272; (3)-1076	KE-02711	Present	HSR002716
Sodium nitrate	7631-99-4	231-554-3	Present	Present	(1)-484	KE-31545	Present	HSR001350
Sodium tolytriazole	64665-57-2	265-004-9	Present	Present	(5)-3601	KE-23499	Present	May be used as a single component chemical under an appropriate group standard
sodium hydroxide	1310-73-2	215-185-5	Present	Present	(2)-1972; (1)-410	KE-31487	Present	HSR001547
Benzoic acid	65-85-0	200-618-2	Present	Present	(3)-1397	KE-02696	Present	HSR003445
Sebacic acid	111-20-6	203-845-5	Present	Present	(2)-878	KE-09402	Present	HSR003130

16. Other information, including date of preparation or last revision

Issue date

04/23/2015

Version #

1

Legend

ACGIH: American Conference of Governmental Industrial Hygienists
 AICS: Australian Inventory of Chemical Substances
 ATE: Acute Toxicity Estimate
 CA: California
 CAS: Chemical Abstract Services
 CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
 CFR: Code of Federal Regulations
 COC: Cleveland Open Cup
 DOT: Department of Transportation
 EC50: Effective Concentration 50%.
 EINECS: European Inventory of Existing Commercial chemical Substances
 EPA: Environmental Protection Agency
 HSDB: Hazardous Substances Data Bank
 IARC: International Agency for Research on Cancer
 IATA: International Air Transport Association
 IBC: Intermediate Bulk Container
 ICAO: International Civil Aviation Organisation
 IECSC: Inventory of Existing Chemical Substances
 IMDG: International Maritime Dangerous Goods
 Inh: Inhalation
 IOC: Inventory of Chemicals
 KECI: Korean Existing Chemicals Inventory
 KECL: Korean Existing Chemicals List
 LC: Lethal Concentration
 LD: Lethal Dose
 MA: Massachusetts
 MN: Minnesota
 N/Ap: Not Applicable

SAFETY DATA SHEET

N/Av: Not Available
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average

Other special considerations for handling

- : Provide adequate information, instruction and training for operators.

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Bibliography

1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2014.
2. International Agency for Research on Cancer Monographs, searched 2015.
3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2015 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists - March 2015 version.
6. California Proposition 65 List - March 27, 2015 version.
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2015.