

Safety Data Sheet NE-320

1. Product and company identification

Product name : NE-320

Material uses : Industrial applications: Demulsifiers

Internal code : OFS0415 System code : OFS0415

Supplier: Bachman Services, Inc.

P.O. Box 96265

Oklahoma City, Oklahoma 73143

Information contact : (800) 535-5053 [Emergency], (405) 677-8296 [Info]

e-mail address of person responsible for this SDS

: sdsinfo@innospecinc.com

Emergency telephone number

Asia Pacific (all countries except China)

In USA, Canada and North America, 24 hour / 7 day emergency information for our product is provided by the CHEMTREC® Emergency Call Center based in the USA

Country information : Emergency telephone number

USA, Canada, Puerto Rico, Virgin Islands : +1 800 424 9300 In case of difficulties, or for ships at sea : +1 703 527 3887

In Europe, Middle East, Africa, Asia Pacific and South America 24 hour / 7 day emergency response for our products is provided by the NCEC CARECHEM 24 global network



Singapore

Country information : Emergency telephone number Location

South America (all countries) +1 215 207 0061 Philadelphia USA

Brazil: +55 113 711 9144BrazilMexico: +52 555 004 8763MexicoEurope (all countries) Middle East, Africa (French, Portuguese, English): +44 (0) 1235 239 670London, UKMiddle East, Africa (Arabic, French, English): +44 (0) 1235 239 671Lebanon

China : +86 10 5100 3039 Beijing China

+65 3158 1074

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Section 2. Hazards identification

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: H225 - Highly flammable liquid and vapor.

H318 - Causes serious eye damage.

H336 - May cause drowsiness and dizziness.

Precautionary statements

Prevention

: P280 - Wear protective gloves. Wear eye or face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling

equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P233 - Keep container tightly closed.

P271 - Use only outdoors or in a well-ventilated area.

P261 - Avoid breathing vapor.

P264 - Wash hands thoroughly after handling.

Response

: P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water or shower.

P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

: P405 - Store locked up. Storage

P403 - Store in a well-ventilated place.

P235 - Keep cool.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Hazards not otherwise

classified

: None known.

Target organs

: Contains material which causes damage to the following organs: upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Contains material which may cause damage to the following organs: blood, kidneys,

liver, spleen.

See toxicological information (Section 11)

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Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
propan-2-ol; isopropanol	15 - 30	67-63-0
Nonyl Phenol Ethoxylated	4.99 - 9.99	127087-87-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation

Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse.

Ingestion

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May give off gas, vapor or dust that is very irritating or corrosive to the

respiratory system.

Skin contact: No known significant effects or critical hazards.

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Section 4. First aid measures

Ingestion

: Can cause central nervous system (CNS) depression. May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact

: Adverse symptoms may include the following:

pain watering redness

Inhalation

: Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

Skin contact

Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion

: Adverse symptoms may include the following:

stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments

Protection of first-aiders

: No specific treatment.

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

Specific hazards arising from the chemical

: Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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Section 5. Fire-fighting measures

Flash point : Closed cup: 20°C (68°F)

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, : including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

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Control parameters

Occupational exposure limits

propan-2-ol; isopropanol ACGIH TLV (United States, 4/2014). TWA: 200 ppm, 0 times per shift, 8 hours. STEL: 400 ppm, 0 times per shift, 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 400 ppm, 0 times per shift, 8 hours. TWA: 980 mg/m³, 0 times per shift, 8 hours.	Ingredient name	Exposure limits
STEL: 500 ppm, 0 times per shift, 15 minutes. STEL: 1225 mg/m³, 0 times per shift, 15 minutes. NIOSH REL (United States, 10/2013). TWA: 400 ppm, 0 times per shift, 10 hours. TWA: 980 mg/m³, 0 times per shift, 10 hours. STEL: 500 ppm, 0 times per shift, 15 minutes. STEL: 1225 mg/m³, 0 times per shift, 15 minutes. OSHA PEL (United States, 2/2013). TWA: 400 ppm, 0 times per shift, 8 hours. TWA: 980 mg/m³, 0 times per shift, 8 hours.		ACGIH TLV (United States, 4/2014). TWA: 200 ppm, 0 times per shift, 8 hours. STEL: 400 ppm, 0 times per shift, 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 400 ppm, 0 times per shift, 8 hours. TWA: 980 mg/m³, 0 times per shift, 8 hours. STEL: 500 ppm, 0 times per shift, 15 minutes. STEL: 1225 mg/m³, 0 times per shift, 15 minutes. NIOSH REL (United States, 10/2013). TWA: 400 ppm, 0 times per shift, 10 hours. TWA: 980 mg/m³, 0 times per shift, 10 hours. STEL: 500 ppm, 0 times per shift, 15 minutes. STEL: 1225 mg/m³, 0 times per shift, 15 minutes. OSHA PEL (United States, 2/2013). TWA: 400 ppm, 0 times per shift, 8 hours.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Section 8. Exposure controls/personal protection

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

: Clear, Amber, Color Odor : Alcohol-like. : Not available. **Odor threshold** pН : 7.5 to 8.5 **Melting point** : Not available. : 82.2°C (180°F) **Boiling point**

Flash point : Closed cup: 20°C (68°F)

Evaporation rate : 1.7

Flammability (solid, gas) : Not available.

Lower and upper explosive

(flammable) limits

: Greatest known range: Lower: 2.3% Upper: 12.7% (isopropanol)

: Highest known value: 4.4 kPa (33 mm Hg) (at 20°C) (isopropanol). Weighted average: Vapor pressure

3.32 kPa (24.9 mm Hg) (at 20°C)

Vapor density : Highest known value: 2.07 (Air = 1) (isopropanol).

: 0.9732 g/cm3 [15°C (59°F)] **Density**

Specific gravity : Not available. **Density** : 8.12 lbs/gal

Solubility : Easily soluble in the following materials: cold water, hot water.

Partition coefficient: n-

octanol/water

: Not available.

: Lowest known value: 399°C (750.2°F) (isopropanol). Auto-ignition temperature

Decomposition temperature: Not available.

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Section 9. Physical and chemical properties

: Kinematic (40°C (104°F)): 0.25 cm²/s (25 cSt) **Viscosity**

Pour point : -28.9°C

Section 10. Stability and reactivity

Reactivity

Chemical stability

Possibility of hazardous

reactions

: No specific test data related to reactivity available for this product or its ingredients.

: The product is stable.

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials

: Reactive or incompatible with the following materials: oxidizing materials

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Species	Result	Dose
isopropanol Polyethylene glycol, mono(p- nonylphenyl) ether, branched	-	Rabbit	LD50 Dermal	5000 mg/kg >3000 mg/kg Key literature references and sources for data
	-	Rat	LD50 Oral	>5000 mg/kg

Potential chronic health effects

Not available.

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
isopropanol	-	Rabbit	Eyes - Moderate irritant -
	-	Rabbit	Eyes - Severe irritant -
	-	Rabbit	Skin - Mild irritant -

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
propan-2-ol; isopropanol	-	3	-

Reproductive toxicity

Not available.

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Section 11. Toxicological information

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
propan-2-ol; isopropanol	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
propan-2-ol; isopropanol	Acute LC50 1400000 to 1950000 μg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 6550 mg/l	Fish	96 hours
Nonyl Phenol Ethoxylated	Acute EC10 0.0251 mg/l	Algae	72 hours
	Acute EC50 0.0033 mg/l	Algae	72 hours
	Acute EC50 0.027 mg/l	Algae	96 hours
	Acute LC50 0.11 mg/l	Daphnia	48 hours
	Acute LC50 0.136 mg/l	Fish	96 hours
	Chronic NOEC 100 mg/m ³	Daphnia	21 days
	Chronic NOEC 6 mg/m³	Fish	91 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
propan-2-ol; isopropanol Nonyl Phenol Ethoxylated	-	-	Readily Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
propan-2-ol; isopropanol	0.05	-	low
Nonyl Phenol Ethoxylated	5.39	37	low

Section 13. Disposal considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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Section 13. Disposal considerations

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1219	UN1219	UN1219
UN proper shipping name	Isopropanol solution	ISOPROPANOL solution	Isopropanol solution
Transport hazard class(es)	3 PLANINGE LIDIP	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Additional information	Limited quantity Yes. Packaging instruction Passenger aircraft Quantity limitation: 5 L Cargo aircraft Quantity limitation: 60 L Special provisions IB2, T4, TP1	Emergency schedules (EmS) F-E, S-D	Passenger and Cargo Aircraft Quantity limitation: 5 L Packaging instructions: 353 Cargo Aircraft Only Quantity limitation: 60 L Packaging instructions: 364 Limited Quantities - Passenger Aircraft Quantity limitation: 1 L Packaging instructions: Y341 Special provisions A180

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations

: United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304

Composition/information on ingredients

	SARA 302 TPQ SARA 304 RQ		SARA 302 TPQ		RQ	
Name	%	EHS	(lbs)	(gallons)	(lbs)	(gallons)
ethylene oxide; oxirane	0 - 0.09	Yes.	1000	-	10	-

SARA 304 RQ : 19357336.4 lbs / 8788230.7 kg [2385537.3 gal / 9030241.2 L]

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Section 15. Regulatory information

SARA 311/312

Classification : Fire hazard

Immediate (acute) health hazard

Composition/information on ingredients

Name	%	hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
propan-2-ol; isopropanol	15 - 30	Yes.	No.	No.	Yes.	No.
Nonyl Phenol Ethoxylated	4.99 - 9.99	No.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	isopropanol	67-63-0	15 - 30
Supplier notification	isopropanol	67-63-0	15 - 30

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: ISOPROPYL ALCOHOL

New York : None of the components are listed.

New Jersey : The following components are listed: ISOPROPYL ALCOHOL; 2-PROPANOL

Pennsylvania : The following components are listed: 2-PROPANOL

California Prop. 65 : WARNING: This product contains less than 0.1% of a chemical known to the State of

California to cause cancer.

WARNING: This product contains less than 1% of a chemical known to the State of

California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive		Maximum acceptable dosage level	Contains : % or ppm
ethylene oxide	Yes.	Yes.	Yes.	Yes.	<1ppm

International lists

National inventory

Australia inventory (AICS) : Not determined.

Canada inventory : All components are listed or exempted.

China inventory (IECSC) : Not determined.

Europe inventory : All components are listed or exempted.

Japan inventory (ENCS) : Not determined.

New Zealand Inventory of Chemicals (NZIoC) : Not determined.

Philippines inventory (PICCS) : Not determined.

Korea inventory (KECI) : Not determined.

Taiwan inventory (TCSI) : Not determined.

United States inventory (TSCA 8b) : All components are listed or exempted.

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Section 15. Regulatory information

Our REACH (pre-) registrations DO NOT cover the following:

- 1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
- 2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations Customers and other third parties importing and/or re-importing our products into Europe will need either:
- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
- In the case of importation only, to make use of the "Only Representative" provisions, if available.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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

Risk phrases : R11- Highly flammable.

R36- Irritating to eyes.

R67- Vapors may cause drowsiness and dizziness.

R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

Safety phrases : Not applicable.

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Section 16. Other information

Key to abbreviations

: ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the

Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

▼ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.