

SAFETY DATA SHEET

M47015 - ANSI - EN



Occidental Chemical Corporation

A subsidiary of Occidental Petroleum Corporation



INHIBITOR CONCENTRATE FOR PERCHLOROETHYLENE

SDS No.: M47015

SDS Revision Date: 21-May-2015

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Identification:	Occidental Chemical Corporation 5005 LBJ Freeway P.O. Box 809050 Dallas, TX 75380-9050 1-800-752-5151
24 Hour Emergency Telephone Number:	1-800-733-3665 or 1-972-404-3228 (USA); CHEMTREC (within USA and Canada): 1-800-424-9300; CHEMTREC (outside USA and Canada): +1 703-527-3887; CHEMTREC Contract No: CCN16186
To Request an SDS:	MSDS@oxy.com or 1-972-404-3245
Customer Service:	1-800-752-5151 or 1-972-404-3700
Product Identifier:	INHIBITOR CONCENTRATE FOR PERCHLOROETHYLENE
Product Use:	Process chemical
Uses Advised Against:	None identified.

2. HAZARDS IDENTIFICATION

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

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EMERGENCY OVERVIEW:

Color: Colorless
Physical State: Liquid
Appearance: Clear liquid
Odor: Strong irritating odor

Signal Word: **DANGER**

MAJOR HEALTH HAZARDS: HARMFUL IF SWALLOWED. HARMFUL IF INHALED. TOXIC IN CONTACT WITH SKIN. CAUSES SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE DROWSINESS OR DIZZINESS. MAY CAUSE RESPIRATORY IRRITATION. SUSPECTED OF CAUSING GENETIC DEFECTS. SUSPECTED OF CAUSING CANCER.

PHYSICAL HAZARDS: FLAMMABLE LIQUID AND VAPOUR.

PRECAUTIONARY STATEMENTS: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Store in well-ventilated place. Keep container tightly closed. Keep away from heat/ sparks/ open flames/ hot surfaces. - No smoking. Ground/ bond container and receiving equipment. Use explosion-proof equipment (eg. electrical, ventilating, and lighting). Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves, protective clothing, eye, and face protection. Wash thoroughly after handling. Do not breathe mist, vapors, or spray. Use respiratory protection as required. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace.

ADDITIONAL HAZARD INFORMATION: This product may be absorbed through the skin, causing systemic effects.

GHS CLASSIFICATION:

GHS: PHYSICAL HAZARDS:	Flammable Liquid - Cat. 3 Flammable
GHS: CONTACT HAZARD - SKIN:	Category 2 - Causes skin irritation.
GHS: CONTACT HAZARD - EYE:	Category 2A - Causes serious eye irritation
GHS: SENSITIZATION HAZARD:	Skin Sensitizer Category 1 - May cause an allergic skin reaction
GHS: ACUTE TOXICITY - INHALATION:	Category 4 - Harmful if inhaled
GHS: ACUTE TOXICITY - ORAL:	Category 4 - Harmful if swallowed.
GHS: ACUTE TOXICITY - DERMAL:	Category 3 - Toxic in contact with skin.
GHS: TARGET ORGAN TOXICITY (SINGLE EXPOSURE):	Category 3 - May cause drowsiness or dizziness Category 3 - May cause respiratory tract irritation
GHS: CARCINOGENICITY:	Category 2 - Suspected of causing cancer.
GHS: GERM CELL MUTAGENICITY:	Category 2 - Suspected of causing genetic defects
GHS: REPRODUCTION TOXIN:	Category 2 - Suspected of damaging fertility or the unborn child

UNKNOWN ACUTE TOXICITY: Listed below.

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Unknown Acute Oral Toxicity:

30% of this product consists of ingredient(s) of unknown acute oral toxicity.

Unknown Acute Dermal Toxicity:

30% of this product consists of ingredient(s) of unknown acute dermal toxicity.

Unknown Acute Inhalation Toxicity:

31% of this product consists of ingredient(s) of unknown acute inhalation toxicity.

GHS SYMBOL: Flame, Skull and Crossbones, Health hazard, Exclamation mark



GHS SIGNAL WORD: DANGER

GHS HAZARD STATEMENTS:

GHS - Physical Hazard Statement(s)

Flammable liquid and vapor

GHS - Health Hazard Statement(s)

Harmful if swallowed

Harmful if inhaled

Toxic in contact with skin

Causes serious eye irritation

Causes skin irritation

May cause an allergic skin reaction

May cause drowsiness or dizziness

May cause respiratory irritation

Suspected of causing genetic defects

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

GHS - Precautionary Statement(s) - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Keep away from flames and hot surfaces. — No smoking

Keep container tightly closed

Ground/ bond container and receiving equipment

Use explosion-proof equipment (electrical equipment, ventilating equipment, lighting equipment, etc.)

Use only non-sparking tools

Take precautionary measures against static discharge

Wear eye protection, face protection, protective gloves, protective clothing

Wash thoroughly after handling

Avoid breathing dust, fume, gas, mist, vapors, or spray

Use only outdoors or in a well-ventilated area

Do not eat, drink or smoke when using this product

Contaminated work clothing must not be allowed out of the workplace

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GHS - Precautionary Statement(s) - Response

In case of fire: use dry chemical, foam, or carbon dioxide (CO₂) to extinguish

IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower

If skin irritation or rash occurs: Get medical advice/attention

Specific treatment (see Section 4 of the safety data sheet and/or the First Aid information on the product label)

Wash contaminated clothing before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Call a POISON CENTER or doctor/physician if you feel unwell

IF IN EYES: 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

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

Rinse mouth

IF exposed or concerned: Get medical advice/attention

GHS - Precautionary Statement(s) - Storage

Store in a well-ventilated place. Keep cool

Keep container tightly closed

Store locked up

GHS - Precautionary Statement(s) - Disposal

Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.

Hazards Not Otherwise Classified (HNOC)

This material may be absorbed across the skin causing systemic effects

A component of this product, n-Butyl glycidyl ether (BGE), has been given the ACGIH "Skin" notation, which indicates that exposure by the cutaneous route, including mucous membranes and the eyes by contact with vapors, liquids, and solids, could cause systemic effects following exposure

The ACGIH "skin" hazard notation was warranted, based on findings of reproductive effects and mutagenicity effects on test animals that had the product component, n-Butyl glycidyl ether (BGE), applied to their skin

See Section 11: TOXICOLOGICAL INFORMATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Percent [%]	CAS Number
n-Butyl glycidyl ether (BGE)	70	2426-08-6
Cyclohexene oxide	29	286-20-4
4-Methoxyphenol	1	150-76-5

4. FIRST AID MEASURES

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INHALATION: If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. See Notes to Physician below and Section 11 for more information.

SKIN CONTACT: Wash exposed skin well with plenty of soap and water. If skin irritation or rash occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse. There is no specific treatment for skin irritation other than washing the affected area with plenty of water. Specific Treatment for skin sensitization: Follow clinical protocols for allergic dermatitis. See Notes to Physician below and Section 11 for more information.

EYE CONTACT: Immediately rinse eyes 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.

INGESTION: If swallowed, rinse mouth. Contact a Poison Center, or a doctor/physician, or get medical attention if you feel unwell.

Most Important Symptoms/Effects (Acute and Delayed) :

Acute Symptoms/Effects: Listed below.

Inhalation (Breathing): Respiratory System Effects: May irritate upper airways. May cause cough. It may cause central nervous system depression (narcotic effects), which can result in drowsiness, dizziness, incoordination (disequilibrium, ataxia), headache, slurred speech, a variety of other symptoms.

Skin: Skin Irritation. Skin exposure may cause irritation, rough red, dry skin, swelling, rash. May cause an allergic skin reaction. This material may be absorbed across the skin causing systemic effects.

Eye: Eye Irritation. Eye exposure may cause irritation, tearing, pain, conjunctivitis, clouding of cornea.

Ingestion (Swallowing): Gastrointestinal System Effects: Exposure by ingestion may cause irritation, nausea, and vomiting.

Delayed Symptoms/Effects:

- Allergic dermatitis may occur after contact. Chronic dermatitis may occur if exposure continues
- A component of this product may permanently depigment contacted skin, including face, neck, chest, hands, feet
- May cause eye damage such as corneal damage, decreased vision
- Suspected of causing genetic defects
- Suspected of causing cancer
- Suspected of damaging fertility or the unborn child
- The product component, n-Butyl glycidyl ether, was applied to the skin of test animals, resulting in reproductive effects and mutagenicity effects

Interaction with Other Chemicals Which Enhance Toxicity: May potentiate other agents that cause Central Nervous System (CNS) depression and respiratory system depression.

Medical Conditions Aggravated by Exposure: Skin conditions such as psoriasis, acute dermatitis, or any other condition that impairs skin function, pigment disorders, respiratory disorders.

Protection of First-Aiders: This is a flammable material. Protect against flammability hazard. Protect against vapor/gas exposure. Protect against liquid contamination. Use personal protective equipment. Refer to Section 8 for specific personal protective equipment recommendations. Consider the possibility of high levels of gas in confined/unventilated spaces or low-lying areas.

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Notes to Physician: There is no antidote. Follow normal clinical protocols for respiratory irritation, Central Nervous System (CNS) depression, skin irritation, dermatitis, allergic dermatitis. Odor provides an adequate warning to exposures. Vapors are heavier than air, and can collect in low lying areas and cause asphyxiation. The risk of manifesting allergic skin conditions depends upon the concentration, duration, and frequency of exposure, and is dependent upon repeat exposure. A minor component of this compound has been used medically to depigment skin. Ingestion cases have not been reported.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Dry chemical, foam or carbon dioxide (CO₂).

Unusual Hazards: Concentrated vapors will decompose and ignite when in contact with a high intensity ignition source.

Fire Fighting: Concentrated vapors will decompose and ignite when in contact with a high intensity ignition source. Toxic gases are formed during thermal decomposition. Avoid inhalation of material or combustion by-products. Firefighters should wear full protective clothing and self-contained, positive-pressure breathing apparatus. Avoid skin contact.

Component	Immediately Dangerous to Life/ Health (IDLH)
n-Butyl glycidyl ether (BGE) 2426-08-6	250 ppm IDLH

Hazardous Combustion Products: Oxides of carbon (Carbon monoxide, Carbon dioxide)

Sensitivity to Mechanical Impact: Not sensitive.

Sensitivity to Static Discharge: Electrostatic charges may build up during handling. Ground equipment in accordance with industry standards and best practices such as NFPA 77 [Recommended Practices on Static Electricity (2007)] and American Petroleum Institute (API) RP Recommended Practice 2003 [Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents (2008)].

Lower Flammability Level (air): No data available

Upper Flammability Level (air): No data available

Flash point: No data available

Method: Setaflash Closed Cup

Auto-ignition Temperature: 95°F/35°C (Setaflash)

GHS: PHYSICAL HAZARDS:

- Flammable Liquid - Cat. 3 Flammable

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

This material is flammable, handle with care. Evacuate unnecessary personnel and eliminate all sources of ignition. Evacuation of surrounding area may be necessary for large spills. Take precautionary measures against static discharges. Do not breathe vapors, mist, or spray. Avoid contact with skin and eyes. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls / Personal Protection, of the SDS. Stay upwind and keep out of low areas. Most vapors are heavier than air and will spread along ground and collect in low or confined areas (drains, basements, tanks). Ventilate closed spaces before entering.

Methods and Materials for Containment and Cleaning Up:

Take action to protect personnel. Keep unnecessary people away, isolate hazard area and deny entry. If spill occurs indoors, turn off heating and/or air conditioning systems to prevent vapors from contaminating entire building. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if possible without personal risk. Ventilate closed spaces before entering. Completely contain spilled materials with dikes, sandbags, etc. Clean up area by mopping, or with appropriate, noncombustible absorbent material and transfer to closed containers for disposal. Keep container tightly closed and properly labeled. Liquid material may be removed with a properly rated vacuum truck. Dispose of in accordance with all applicable regulations. Do not flush to sewer.

Environmental Precautions:

Avoid contamination of ground and surface waters. Keep out of water supplies, sewers and soil. Releases should be reported, if required, to appropriate regulatory agencies.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

This material is flammable, handle with care. Handle and use in accordance with OSHA 29 CFR 1910.106 local codes. Use only equipment and hoses approved for this material. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. Take precautionary measures against static discharges. Use non-sparking tools and equipment. Ground/bond container and receiving equipment. Use only explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Ventilation must be sufficient to keep employee exposures below OSHA Permissible Exposure Limits. Vapors are heavier than air and will collect in low areas. Do not reuse drum without recycling or reconditioning in accordance with any applicable federal, state or local laws. Do not use cutting or welding torches, open flames or electric arcs on empty or full containers. Protect from physical damage. Avoid breathing vapor, mist, or spray. Avoid contact with skin and eyes. Can be absorbed through skin. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS. Wash thoroughly after handling.

Safe Storage Conditions:

Store and handle in accordance with all current regulations and standards. Store in a cool, well-ventilated area away from possible sources of ignition. Keep containers closed when not in use. Store in closed and properly labeled containers. When opening, loosen bung slowly to relieve interior pressure. Prevent water or moist air from entering storage tanks or containers. Protect from sunlight. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet).

Incompatibilities/ Materials to Avoid:

Oxidizing agents, Strong acids, alkalies and amines

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GHS: PHYSICAL HAZARDS:

- Flammable Liquid - Cat. 3 Flammable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Regulatory Exposure Limit(s): Listed below for the product components that have regulatory occupational exposure limits (OEL's) established.

Component	OSHA Final PEL TWA	OSHA Final PEL STEL	OSHA Final PEL Ceiling
n-Butyl glycidyl ether (BGE) 2426-08-6	50 ppm 270 mg/m ³	-----	-----

OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit

NON-REGULATORY EXPOSURE LIMIT(S): Listed below for the product components that have advisory (non-regulatory) occupational exposure limits (OEL's) established.

Component	CAS Number	ACGIH TWA	ACGIH STEL	ACGIH Ceiling	OSHA TWA (Vacated)	OSHA STEL (Vacated)	OSHA Ceiling (Vacated)
n-Butyl glycidyl ether (BGE)	2426-08-6	25 ppm	-----	-----	25 ppm 135 mg/m ³	-----	-----
4-Methoxyphenol	150-76-5	5 mg/m ³	-----	-----	5 mg/m ³	-----	-----

- The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).

- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

Additional Advice: Use good personal hygiene. Do not consume or store food in the work area. Wash hands and affected skin immediately after handling, before smoking or eating, before breaks, and at the end of the workday.

ENGINEERING CONTROLS: Ensure adequate ventilation. Provide local exhaust ventilation where vapors, mist, spray, or aerosols may be generated. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

Eye Protection: Wear safety glasses with side-shields. Wear chemical safety goggles with a face-shield to protect against eye and skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin and Body Protection: Wear protective clothing to minimize skin contact. Wear solvent-resistant gloves such as Viton or equivalent. Solvent resistant boots, jackets, pants, headgear and full face protection should be worn where splashing is a possibility.

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Hand Protection: Wear appropriate chemical resistant gloves. Wear solvent-resistant gloves such as Viton or equivalent. For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

Respiratory Protection: Where vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator is required. An approved self-contained breathing apparatus operated in the pressure demand mode or an airline respirator with escape pack is required when an air purifying respirator is not adequate or for spills / emergencies of unknown concentrations. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

Component	Immediately Dangerous to Life/ Health (IDLH)
n-Butyl glycidyl ether (BGE) 2426-08-6	250 ppm IDLH

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance:	Clear liquid
Color:	Colorless
Odor:	Strong irritating odor
Decomposition Temperature:	No data available
Boiling Point/Range:	271 - 361 F
Freezing Point/Range:	No data available.
Melting Point/Range:	Not applicable to liquids
Vapor Pressure:	5 mm Hg@20 C
Relative Density/Specific Gravity (water=1):	No data available
pH:	Not applicable
VOC Content (%):	100%
Evaporation Rate (ether=1):	No data available
Partition Coefficient (n-octanol/water):	No data available
Flash point:	No data available
Method:	Setaflash Closed Cup
Flammability (solid, gas):	Not applicable
Lower Flammability Level (air):	No data available
Upper Flammability Level (air):	No data available
Auto-ignition Temperature:	95°F/35°C (Setaflash)
Viscosity:	No data available
Hygroscopic:	Yes

10. STABILITY AND REACTIVITY

Reactivity: Not reactive at normal temperature and pressure.

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Chemical Stability: Stable at normal temperature and pressure.**Conditions to Avoid:**

Polymerization may occur when subjected to elevated temperatures above 99°F for prolonged periods.

Incompatibilities/ Materials to Avoid:

Oxidizing agents. Strong acids, alkalies and amines.

Hazardous Decomposition Products: Oxides of carbon (Carbon monoxide, Carbon dioxide)**Hazardous Polymerization:** May occur at elevated temperatures.**11. TOXICOLOGICAL INFORMATION****TOXICITY DATA:****PRODUCT TOXICITY DATA:** Inhibitor Concentrate for Perchloroethylene

<u>LD50 Oral:</u> 505 mg/kg - Oral Acute Toxicity Estimate (ATE)	<u>LD50 Dermal:</u> 799 mg/kg - Dermal Acute Toxicity Estimate (ATE)	<u>LC50 Inhalation:</u> 1.52 mg/l (Rat) - Inhalation Acute Toxicity Estimate (ATE) - [Dusts / Mists]
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COMPONENT TOXICITY DATA:**Note:** The component toxicity data is populated by the LOLI database and may differ from the product toxicity data given.

Component	LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
n-Butyl glycidyl ether (BGE) 2426-08-6	2050 mg/kg (Rat)	788 mg/kg (Rabbit)	2590 ppm (4 hr-Rat)
4-Methoxyphenol 150-76-5	1600 mg/kg (Rat)	> 1000 mg/kg (Rabbit)	-----

POTENTIAL HEALTH EFFECTS:**Eye contact:**

May cause severe eye irritation, tearing, redness, pain, conjunctival irritation, corneal edema, whitening, corneal erosion, decreased vision.

Skin contact:

May cause skin irritation, inflammation of skin, rash, skin sensitization, loss of skin pigmentation, dermatitis, allergic contact dermatitis. Material may penetrate the skin and cause systemic toxicity.

Inhalation:

Breathing this material may cause irritation of upper airway, sedation, bronchospasm, shortness of breath, lightheadedness, nausea, vomiting, headache, weakness, stupor, incoordination.

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Ingestion: Ingestion of this material may cause gastrointestinal irritation, central nervous system (CNS) depression, central nervous system symptoms such as tremor, ataxia (difficulty walking), nausea, vomiting, headache, difficulty breathing.

Chronic Effects: Allergic dermatitis may occur after contact. Chronic dermatitis may occur if exposure continues. A component of this product may permanently depigment contacted skin, including face, neck, chest, hands, feet. May cause eye damage such as corneal damage, decreased vision. Suspected of causing cancer. Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. The product component, n-Butyl glycidyl ether, was applied to the skin of test animals, resulting in reproductive effects and mutagenicity effects.

SIGNS AND SYMPTOMS OF EXPOSURE:

Inhalation (Breathing): Respiratory System Effects: May irritate upper airways. May cause cough. It may cause central nervous system depression (narcotic effects), which can result in drowsiness, dizziness, incoordination (disequilibrium, ataxia), headache, slurred speech, a variety of other symptoms.

Skin: Skin Irritation. Skin exposure may cause irritation, rough red, dry skin, swelling, rash. May cause an allergic skin reaction. This material may be absorbed across the skin causing systemic effects.

Eye: Eye Irritation. Eye exposure may cause irritation, tearing, pain, conjunctivitis, clouding of cornea.

Ingestion (Swallowing): Gastrointestinal System Effects: Exposure by ingestion may cause irritation, nausea, and vomiting.

TOXICITY:

Do not patch test. Patch testing may cause skin sensitization. Skin sensitization has been reported in patch tested individuals. Individuals with prolonged and repeated contact to undiluted solutions are more likely to develop sensitization than those exposed to less concentrated solutions. Prevent skin exposure and repeat exposure. The irritant properties of this mixture warn against ingestion and prolonged exposure.

CHRONIC TOXICITY:

A component of this product, n-Butyl glycidyl ether (BGE), has been given the ACGIH "Skin" notation, which indicates that exposure by the cutaneous route, including mucous membranes and the eyes by contact with vapors, liquids, and solids, could cause systemic effects following exposure. The ACGIH "skin" hazard notation was warranted, based on findings of reduced pregnancy rates in female mice and rats mated to males to whose skin BGE had been applied, and based on the finding that male germ cell mutagenicity resulted from the application of BGE to the skin of test animals.

Interaction with Other Chemicals Which Enhance Toxicity: May potentiate other agents that cause Central Nervous System (CNS) depression and respiratory system depression.

GHS HEALTH HAZARDS:

GHS: ACUTE TOXICITY - ORAL: Category 4 - Harmful if swallowed.

GHS: ACUTE TOXICITY - DERMAL: Category 3 - Toxic in contact with skin.

GHS: ACUTE TOXICITY - INHALATION: Category 4 - Harmful if inhaled.

GHS: CONTACT HAZARD - EYE: Category 2A - Causes serious eye irritation

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GHS: CONTACT HAZARD - SKIN: Category 2 - Causes skin irritation

Skin Absorbent / Dermal Route? Yes.

GHS: SENSITIZATION HAZARD: Skin Sensitizer Category 1 - May cause an allergic skin reaction.

ACGIH - Sensitizers Listed

GHS: CARCINOGENICITY:
Category 2 - Suspected of causing cancer.

MUTAGENIC DATA:

Category 2 - Suspected of causing genetic defects. Unscheduled DNA Synthesis: Positive. Amest Test: Positive. Sister Chromatid Exchange Mouse Micronucleus Test: Positive.

REPRODUCTIVE TOXICITY:

Category 2 - Suspected of damaging fertility or the unborn child. Mouse studies showed decreased fertility in exposed male mice compared to controls for both lower pregnancy rate and fetal viability of offspring.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

FATE AND TRANSPORT:

BIODEGRADATION: No information available

BIOCONCENTRATION: No data available.

BIOACCUMULATIVE POTENTIAL: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from material:

Reuse or reprocess, if possible. Dispose in accordance with all applicable regulations. Waste characterization and disposal compliance are the responsibility of the waste generator.

Container Management:

Dispose of container in accordance with applicable local, regional, national, and/or international regulations. Contaminated material must be disposed of in a permitted waste management facility. Recovered liquids may be sent to an EPA permitted reclaimer or incineration facility. Container rinsate must be disposed of in compliance with applicable regulations. Consult federal, state, or local disposal authorities for approved procedures.

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14. TRANSPORT INFORMATION

LAND TRANSPORT

U.S. DOT 49 CFR 172.101:

UN NUMBER: UN1993
PROPER SHIPPING NAME: Flammable liquids, n.o.s. (n-butyl glycidyl ether, cyclohexene oxide)
HAZARD CLASS/ DIVISION: 3
PACKING GROUP: III
LABELING REQUIREMENTS: FLAMMABLE, Class 3

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

UN NUMBER: UN1993
SHIPPING NAME: Flammable liquids, n.o.s. (n-butyl glycidyl ether, cyclohexene oxide)
CLASS OR DIVISION: 3
PACKING/RISK GROUP: III
LABELING REQUIREMENTS: FLAMMABLE, Class 3

15. REGULATORY INFORMATION

U.S. REGULATIONS

OSHA REGULATORY STATUS:

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

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):

Not regulated.

SARA EHS Chemical (40 CFR 355.30)

Not regulated

EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10):

Acute Health Hazard, Chronic Health Hazard, Fire Hazard

EPCRA SECTION 313 (40 CFR 372.65):

Not regulated.

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DEPARTMENT OF HOMELAND SECURITY (DHS)- Chemical Facility Anti-Terrorism Standards (6 CFR 27):

No components in this material are regulated under DHS

OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):

Not regulated

NATIONAL INVENTORY STATUS
U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA): All components are listed or exempt.

TSCA 12(b): This product is not subject to export notification.

Canadian Chemical Inventory: All components of this product are listed on either the DSL or the NDSL.

STATE REGULATIONS

Component	California Proposition 65 Cancer WARNING:	California Proposition 65 CRT List - Male reproductive toxin:	California Proposition 65 CRT List - Female reproductive toxin:	Massachusetts Right to Know Hazardous Substance List	New Jersey Right to Know Hazardous Substance List	New Jersey Special Health Hazards Substance List
n-Butyl glycidyl ether (BGE) 2426-08-6	Not Listed	Not Listed	Not Listed	Listed	1331	Not Listed
4-Methoxyphenol 150-76-5	Not Listed	Not Listed	Not Listed	Listed	1216	Not Listed

Component	New Jersey - Environmental Hazardous Substance List	Pennsylvania Right to Know Hazardous Substance List	Pennsylvania Right to Know Special Hazardous Substances	Pennsylvania Right to Know Environmental Hazard List	Rhode Island Right to Know Hazardous Substance List
n-Butyl glycidyl ether (BGE) 2426-08-6	Not Listed	Listed	Not Listed	Not Listed	Listed
4-Methoxyphenol 150-76-5	Not Listed	Listed	Not Listed	Not Listed	Listed

CANADIAN REGULATIONS

• This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations

WHMIS - Classifications of Substances:

- B2 - Flammable Liquid
- D1A - Poisonous and Infectious Material; Materials causing immediate and serious toxic effects - Very toxic material
- D2A - Poisonous and Infectious Material; Materials causing other toxic effects - Very toxic material

16. OTHER INFORMATION

INHIBITOR CONCENTRATE FOR PERCHLOROETHYLENE

SDS No.: M47015

SDS Revision Date: 21-May-2015

Prepared by: OxyChem Corporate HESS - Product Stewardship

Rev. Date: 21-May-2015

HMIS: (SCALE 0-4) (Rated using National Paint & Coatings Association HMIS: Rating Instructions, 2nd Edition)

Health Rating: 3*

Flammability Rating: 3

Reactivity Rating: 1

NFPA 704 - Hazard Identification Ratings (SCALE 0-4)

Health Rating: 2

Flammability: 2

Reactivity Rating: 1

Reason for Revision:

- Three year review
- Changed the SDS format to meet the GHS requirements of the revised 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
- Updated 24 Hour Emergency Telephone Number: SEE SECTION 1
- Product Identifier has been added or updated: SEE SECTION 1
- Updated Uses Advised Against information: SEE SECTION 1
- Added OSHA Status: SEE SECTION 2
- Added GHS Information: SEE SECTION 2
- Added synonym(s): SEE SECTION 3
- Updated First Aid Measures: SEE SECTION 4
- Modified Fire Fighting Measure Recommendations: SEE SECTION 5
- Revised Accidental Release Measures: SEE SECTION 6
- Revised Handling and Storage Recommendations: SEE SECTION 7
- Revised Exposure Controls/Personal Protection information: SEE SECTION 8
- Updated Physical and Chemical Properties. SEE SECTION 9
- Stability and Reactivity recommendations: SEE SECTION 10
- Toxicological Information has been revised: SEE SECTION 11
- Updated Disposal Considerations. SEE SECTION 13
- Updated Transportation Information: SEE SECTION 14
- Regulatory Information Changes: SEE SECTION 15
- Revised Preparer Information: SEE SECTION 16
- Added SDS Revision Date: SEE SECTION 16
- Added Revision log: SEE SECTION 16
- Added "End of Safety Data Sheet" phrase

INHIBITOR CONCENTRATE FOR PERCHLOROETHYLENE

SDS No.: M47015

SDS Revision Date: 21-May-2015

IMPORTANT:

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OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Safety Data Sheet available to your employees

End of Safety Data Sheet