

Section 1: Identification

MANUFACTURER: PACE Technologies
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INFORMATION PHONE: 520-882-6598

EMERGENCY PHONE: CHEMTREC 800-424-9300 (US) Day or night
Customer No. 16568

TRADE NAME: Propylene Glycol Corrosion Inhibitor Additive (conc.)


CHEMICAL FAMILY: Corrosion Inhibitor

HMS RATING: HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0

HAZARD RATING:

LEAST: 0 SLIGHT: 1 MODERATE: 2 HIGH: 3 EXTREME: 4

Section 2: Hazard(s) Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)	Acute toxicity, Oral (Category 4), H302 Eye irritation (Category 2A), H319 Acute toxicity, Inhalation (Category 4), H332 Acute aquatic toxicity (Category 3), H402 Chronic aquatic toxicity (Category 3), H412
PICTOGRAM(s):	
SIGNAL WORD:	Warning
HAZARD STATEMENTS:	Hazard Statement(s): H302 - Harmful if swallowed H319- Causes serious eye irritation H332- Harmful if inhaled H402- Harmful to aquatic life H412- Harmful to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS:	<p>Precautionary Statement(s):</p> <p>Preventions: P261- Avoid breathing dust/fume/gas/mist/vapors/spray. P264- Wash hands thoroughly after handling. P270- Do not eat, drink or smoke when using this product. P271- Use only outdoors or in a well-ventilated area. P273- Avoid release to the environment. P280- Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Response: P301+P312- IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell. P304+P341- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312- Call a POISON CENTER or doctor/physician if you feel unwell. P330- Rinse mouth. P337+P313- IF eye irritation persists: Get medical advice/attention. P342+P311- IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician. P391- Collect spillage. Hazardous to the aquatic environment.</p> <p>Storage: N/A</p> <p>Disposal: P501- Dispose of contents/container to Federal, State and Local Regulations. Incinerate.</p>
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EYES: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

SKIN: Harmful if absorbed through the skin. Wash with soap and water. If skin irritation or an allergic skin reaction develops, get medical attention.

INHALATION: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

INGESTION: Harmful if swallowed. If conscious, drink water and induce vomiting immediately as directed by medical personnel.

Section 3: Composition/Information on Ingredients

CHEMICAL	CAS NUMBER	EINECS Number	% PRESENT
Propylene glycol	57-55-6	200-338-0	>90%
Benzene azimide	95-14-7	202-394-1	<5%
Biodegradable polymer	-	-	<10%
Water	7732-18-5	-	25-50%

Section 4: First-Aid Measures

- EYES:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.
- SKIN:** Harmful if absorbed through the skin. Wash with soap and water. If skin irritation or an allergic skin reaction develops, get medical attention.
- INHALATION:** If symptomatic, move to fresh air. Get medical attention if symptoms persist.
- INGESTION:** Harmful if swallowed. If conscious, drink water and induce vomiting immediately as directed by medical personnel.
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Section 5: Fire-Fighting Measures

- EXTINGUISHING MEDIA:** Water spray, Dry chemical, CO2, alcohol foam.
- SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus and protective clothing.
- HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, carbon monoxide
- UNUSUAL FIRE AND EXPLOSION HAZARDS** None
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Section 6: Accidental Release Measures

- STEPS TO TAKE IF MATERIAL IS SPILLED OR RELEASED:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste
- For Large Spills: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams.
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Section 7: Handling and Storage

- Keep container closed.
- Store in a cool area away from ignition sources and oxidizers.
- Do NOT breathe vapors.

- Do NOT get in eyes.
- Avoid prolonged or repeated skin contact.

Section 8: Exposure Controls/ Personal Protection

EXPOSURE LIMITS:	ACGIH threshold Limit Value (TLV): not established OSHA (USA) Permissible Exposure Limit (PEL, 1989 Table Z-1-A values or section-specific standards): not established AIHA Workplace Environmental Exposure Level (WEEL): propylene glycol: 500 ppm TWA, total: 10 mg/m ³ TWA, aerosol only
VENTILATION:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.
RESPIRATORY PROTECTION:	If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: mist; organic vapor. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998.
EYE PROTECTION:	It is a good industrial hygiene practice to minimize eye contact.
SKIN PROTECTION:	It is a good industrial hygiene practice to minimize skin contact.
RECOMMENDED DECONTAMINATION FACILITIES:	Eye bath, washing facilities

Section 9: Physical and Chemical Properties

PHYSICAL FORM:	Viscous liquid
BOILING POINT:	187.3°C (369 °F)
MELTING POINT:	-60°C (-76°F)

SPECIFIC GRAVITY (H2O = 1)	1.038
COLOR	Colorless
ODOR	Mild
SOLUBILITY IN WATER (% BY VOLUME)	100%
VISCOSITY at 20°C (68°F)	60.5 cP
EVAPORATION RATE (BUTYL ACETATE = 1)	0.005
VAPOR PRESSURE @ 20 C	0.106 mbar (0.08 mm Hg)

Section 10: Stability and Reactivity

STABILITY: Stable.

INCOMPATIBLE MATERIALS: Material can react with strong oxidizing agents and heavy metals.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Heat, contact with ignition sources.

Section 11: Toxicological Information

EFFECTS OF EXPOSURE:

INHALATION: Low hazard for usual industrial handling or commercial handling by trained personnel.

EYES: Low hazard for usual industrial handling or commercial handling by trained personnel.

SKIN: This material has a low potential to cause allergic skin reactions; however, cases of human skin sensitization have been reported.

INGESTION:

Expected to be a low ingestion hazard.

ACCUTE TOXICITY DATA (Propylene Glycol):

Oral LD-50 (rat): 21.0-33.7 g/kg

Oral LD-50 (mouse): 23.9-31.8 g/kg

Oral LD-50 (guinea pig): 18.4-19.6 g/kg

Oral LD-50 (rabbit): 15.7-19.2 g/kg

Inhalation LC-50 (rat): >105 ppm/8 hour(s) (highest concentration obtainable)

Dermal LD-50 (rabbit): 20.8 g/kg

Skin irritation (guinea pig): none

Skin irritation (rabbit): none

Skin sensitization (human): slight

Eye irritation (rabbit): slight

TOXICITY DATA (Benzene azimide)

ORL-RAT LC50 560 mg/kg

ORL-MUS LD50 615 mg/kg

IHL-RAT LC50 1910 mg/m³/3h

SKN-RAT LD50 > 1000 mg/kg

Definitions for the following section(s): LOEL = lowest-observed-effect level,

NOAEL = no observed-adverse-effect level, NOEL = no-observed-effect level.

Subchronic Toxicity Data: Oral study (140 days, rat): NOEL = 13200 mg/kg/day

Chronic Toxicity Data (Propylene Glycol):

Oral study (2 years, dog): NOEL = 2000 mg/kg/day

Inhalation study (12-18 months, rat): NOEL = 65.8-100 ppm/day (highest concentration obtainable)

Carcinogenicity Data: Oral study (2 years, dog): NOEL = 2500 mg/kg/day

Reproductive Toxicity Data: Oral study (mouse): NOEL for maternal/paternal toxicity = 10100 mg/kg/day (highest dose tested); NOEL for maternal/paternal fertility = 10100 mg/kg/day (highest dose tested); NOEL for embryo/fetotoxicity = 10100 mg/kg/day (highest dose tested).

Mutagenicity/Genotoxicity Data: Salmonella typhimurium assay (Ames test): negative (+/- activation)

Section 12: Ecological Information

Introduction: This environmental effects summary is written to assist in addressing emergencies created by an accidental spill which might occur during the shipment of this material, and, in general, it is not meant to address discharges to sanitary sewers or publicly owned treatment works. Data for this material have been used to estimate its environmental impact.

It has the following properties: a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to persist in the environment, a low potential to bioconcentrate. After dilution with a large amount of water, followed by secondary waste treatment, this material is not expected to cause adverse environmental effects.

Oxygen Demand Data:

ThOD: 1.68 g oxygen/g

COD: 1.63 g oxygen/g

BOD-5 1.08 g oxygen/g

BOD-20: 1.225 g oxygen/g

Acute Aquatic Effects Data:

24-h LC-50 (goldfish): >5000 mg/l

48-h LC-50 (guppy): >10000 mg/l

96-h LC-50 (rainbow trout): >10000 mg/l

96-h LC-50 (bluegill sunfish): 1700 mg/l

96-h LC-50 (tidewater silverside): 650 mg/l

Section 13: Disposal Considerations

Discharge, treatment, or disposal may be subject to federal, state, or local laws. Incinerate.

Section 14: Transportation Information

DOT (CFR49): NOT REGULATED.

IATA (air): NOT REGULATED.

IMDG (ocean): NOT REGULATED.

HAZARD CLASSIFICATION: NON-HAZARDOUS.

PACKING GROUP: NOT REGULATED.

UN/NA CODE: NOT REGULATED.

Section 15: Regulatory Information

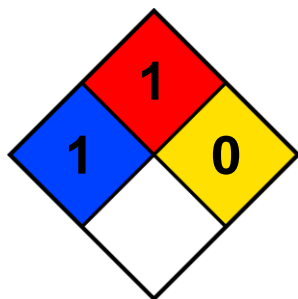
- This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 DGR 1910.1200.
- OSHA Classification: nonhazardous
- California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): material(s) known to the State to cause cancer: none known to Eastman)
- California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): material(s) known to the State to cause adverse reproductive effects: none known to Eastman)
- This document has been prepared in accordance with the MSDS requirements of the WHMIS (Canada) Controlled Products Regulation.
- WHNIS (Canada) Status: noncontrolled
- WHMIS (Canada) Hazard Classification: not applicable
- Carcinogenicity Classification (components present at 0.1% or more):
 - International Agency for Research on Cancer (IARC): not listed
 - American Conference of Governmental Industrial Hygienists (ACGIH): no listed
 - National Toxicology Program (NTP): not listed
 - Occupational Safety and Health Administration (OSHA): not listed
- Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: none
- SARA (USA) Sections 311 and 312 hazard classification(s): not applicable
- US Toxic Substances Control Act (TSCA): This product is listed on the TSCA inventory. An impurities present in the product are exempt from listing.
- Canadian Environmental Protection Act (CEPA) and Domestic Substances List (DSL): This product is listed on the DSL. Any impurities present in this product are exempt from listing.
- European Inventory of Existing Commercial Chemical Substances (EINECS): this product is listed on EINECS. EINECS Number: 2003380
- Australian Inventory of Chemical Substances (AICS) and National Industrial Chemicals Notification and Assessment Scheme (NICNAS): This product is listed on AICS or otherwise complies with NICNAS.

- Japanese Handbook of Existing and New Chemical Substances: This product is listed in the Handbook or has been approved in Japan by new substance notification.
- Korean Toxic Substances Control Act: This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act. ECL Number: 2-1420

<u>R-Phrases:</u>	<u>S-Phrases:</u>
R22 (Harmful if swallowed)	S24/25 (Avoid contact with skin and eyes)
R36/R38 (Irritating to eyes and skin)	S26 (In case of contact with eyes, rinse immediately with plenty of water and seek medical advice)
	S28 (After contact with skin, wash immediately with plenty of soap-suds)
	S36/37/39 (Wear suitable protective clothing, gloves and eye/face protection)

Section 16: Other Information

16.1 NFPA 704



Top, Flammability: 1 – Slight Hazard

Left, Health Hazard: 1 – Slight Hazard

Right, Reactivity: 0 – Minimal Hazard

Bottom, Special Notice: N/A

DISCLAIMER:

PACE Technologies, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must

exercise their independent judgment in determining its appropriateness for a particular purpose. PACE TECHNOLOGIES, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, PACE TECHNOLOGIES, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

DATE PREPARED: 2/09/2015

DATE REVISED: 6/7/2018 AG
