



CLEARWATER™
Engineered Chemistry®

Material Safety Data Sheet

PACKER INHIBITOR

HEALTH			*	2
FLAMMABILITY				3
PHYSICAL HAZARD				0
PERSONAL PROTECTION				

1. Product and Company Identification

Material name	PACKER INHIBITOR
Patent Number	Not available
Revision date	June-21-2011
Version No.	4
CAS #	Mixture
Product use	Corrosion Inhibitor
Manufacturer information	Clearwater™ International L.L.C. 100 Leetsdale Industrial Drive Leetsdale, PA 15056 US CHEMTREC 1-800-424-9300/703-527-3887
Emergency	CHEMTREC 1-800-424-9300/703-527-3887
Supplier information	Clearwater™ International L.L.C. 100 Leetsdale Industrial Drive Leetsdale, PA 15056 US
Supplier emergency telephone number(s)	CHEMTREC 1-800-424-9300/703-527-3887

2. Hazards Identification

Emergency overview	Will be easily ignited by heat, spark or flames. Irritating to respiratory system. Prolonged exposure may cause chronic effects.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Skin contact. Ingestion. Eye contact.
Eyes	This product causes eye burns. Risk of serious damage to eyes. Do not get this material in contact with eyes.
Skin	Causes skin burns. Do not get this material in contact with skin.
Inhalation	Causes burns. Prolonged inhalation may be harmful. Irritating to respiratory system. Do not breathe dust/fume/gas/mist/vapors/spray.
Ingestion	Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. May cause delayed lung damage. Do not ingest. Components of the product may be absorbed into the body by ingestion.
Target organs	Eyes. Gastrointestinal tract. Lungs. Respiratory system. Skin.
Chronic effects	Shortness of breath. May cause delayed lung damage.
Signs and symptoms	Discomfort in the chest. Shortness of breath. Cough.
Potential environmental effects	Components of this product are hazardous to aquatic life. May cause long-term adverse effects in the environment.



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3. Composition / Information on Ingredients

Components	CAS #	Percent
Acetic Acid	64-19-7	7 - 13
Methanol	67-56-1	40 - 70
Ammonium bisulfite	10192-30-0	15 - 40

4. First Aid Measures

First aid procedures

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Skin contact

Wash off with soap and water. Get medical attention if irritation develops or persists.

Inhalation

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.

Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice.

Notes to physician

In case of shortness of breath, give oxygen. Keep victim warm. Symptoms may be delayed.

General advice

In case of shortness of breath, give oxygen. Keep victim warm. Call a physician if symptoms develop or persist. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties

Flammable by OSHA criteria. Containers may explode when heated. Runoff to sewer may cause fire or explosion hazard.

Extinguishing media**Suitable extinguishing media**

Water. Foam. Dry chemical. Carbon dioxide (CO₂).

Unsuitable extinguishing media

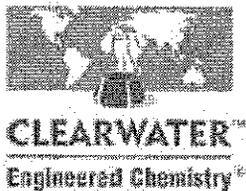
Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters**Specific hazards arising from the chemical**

Fire may produce irritating, corrosive and/or toxic gases.

Protective equipment and precautions for firefighters

In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Move containers from fire area if you can do it without risk. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.



6. Accidental Release Measures

Personal precautions	Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away. Stay upwind. Keep out of low areas.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Should not be released into the environment. Large Spills: Dike far ahead of liquid spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. After removal flush contaminated area thoroughly with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly. Never return spills in original containers for re-use.

7. Handling and Storage

Handling	Do not handle or store near an open flame, heat or other sources of ignition. Use only with adequate ventilation. Wash thoroughly after handling. Avoid prolonged exposure.
Storage	Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
Methanol	67-56-1	200 ppm	250 ppm	Not established
Acetic Acid	64-19-7	10 ppm	15 ppm	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
Methanol	67-56-1	200 ppm	Not established	Not established
Acetic Acid	64-19-7	10 ppm	Not established	Not established

Engineering controls	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Eye / face protection	Do not get this material in contact with eyes. Wear chemical goggles. Face-shield.



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Skin protection

Do not get this material in contact with skin. Do not get this material on clothing. Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Protective gloves. Impervious gloves. Structural firefighters protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

Respiratory protection

Wear positive pressure self-contained breathing apparatus (SCBA). When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygiene considerations

Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. When using do not eat or drink. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Liquid.
Color	yellow - amber
Odor	Not assigned.
Odor threshold	Not available
Physical state	Liquid.
Form	Liquid.
pH	5 - 8
Melting point	-29.2 °F (-34.15 °C) estimated
Freezing point	Not available
Boiling point	129.2 °F (54.44 °C) estimated
Flash point	80 °F (26.7 °C)
Evaporation rate	Not available
Flammability	Not available.
Flammability limits in air, upper, % by volume	Not available
Flammability limits in air, lower, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	0.97 - 1
Relative density	0.9849 g/cm ³ estimated
Solubility (water)	Not available
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	390.2 °F (199 °C) estimated
Decomposition temperature	Not available
VOC	42.8 % estimated

10. Chemical Stability & Reactivity Information

Chemical stability Risk of ignition. Stable at normal conditions.



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Conditions to avoid Heat, flames and sparks.
Incompatible materials Peroxides. Strong oxidizing agents. Strong acids. Caustics.
Hazardous decomposition products Irritants. Toxic gas. May include oxides of nitrogen. May include oxides of phosphorus.
Possibility of hazardous reactions Hazardous polymerization does not occur.

11. Toxicological Information

Acute effects Acute LD50: 10386 mg/kg estimated, Rat, Oral
 Acute LD50: 11503 mg/kg estimated, Rat, Dermal
 Acute LC50: 35 mg/l/4h estimated, Rat, Inhalation
 Causes burns.

Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

Acetic Acid	64-19-7	Inhalation LC50 Rat: 11.4 mg/L/1H; Oral LD50 Rat:3310 mg/kg; Dermal LD50 Rabbit:1060 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat: 83.2 mg/L/4H; Inhalation LC50 Rat:64000 ppm/4H; Oral LD50 Rat:5628 mg/kg; Dermal LD50 Rabbit:15800 mg/kg

Local effects Irritating to respiratory system.
Chronic effects Hazardous by OSHA criteria. Prolonged or repeated exposure may cause lung injury. Prolonged exposure may cause chronic effects.
Carcinogenicity Not expected to be hazardous by OSHA criteria.
Neurological effects Not expected to be hazardous by OSHA criteria.

12. Ecological Information

Ecotoxicity LC50 1273 mg/L estimated, Fish, 96.00 Hours,

Ecotoxicity - Freshwater Fish Species Data

Acetic Acid	64-19-7	96 Hr LC50 Pimephales promelas: 88 mg/L [static]; 96 Hr LC50 Lepomis macrochirus 75 mg/L
Methanol	67-56-1	96 Hr LC50 Pimephales promelas: 28100 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 13200 mg/L

Ecotoxicity - Microtox Data

Acetic Acid	64-19-7	5 min EC50 Photobacterium phosphoreum: 8.8 mg/L; 15 min EC50 Photobacterium phosphoreum: 8.8 mg/L; 25 min EC50 Photobacterium phosphoreum: 8.8 mg/L
Methanol	67-56-1	5 min EC50 Photobacterium phosphoreum: 43000 mg/L; 15 min EC50 Photobacterium phosphoreum: 40000 mg/L; 25 min EC50 Photobacterium phosphoreum: 39000 mg/L

Ecotoxicity - Water Flea Data

Acetic Acid	64-19-7	24 Hr EC50 Daphnia magna: 95 mg/L
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Environmental effects Harmful to aquatic life.

Ecotoxicity - Freshwater Fish Species Data

Acetic Acid	64-19-7	96 Hr LC50 Pimephales promelas: 88 mg/L [static]; 96 Hr LC50 Lepomis macrochirus 75 mg/L
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Ecotoxicity - Water Flea Data

Acetic Acid	64-19-7	24 Hr EC50 Daphnia magna: 95 mg/L
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13. Disposal Considerations

Waste codes D001: Waste Flammable material with a flash point <140 F
U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

Methanol 67-56-1 waste number U154 (Ignitable waste)

Disposal instructions Dispose of this material and its container at hazardous or special waste collection point. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Dispose in accordance with all applicable regulations.

14. Transport Information

Department of Transportation (DOT) Requirements

Basic shipping requirements:

Proper shipping name Flammable liquids, n.o.s. (Methanol)
Hazard class 3
UN number UN1993
Packing group III

Additional information:

Packaging non bulk 202
Packaging bulk 242
ERG number 128



Department of Transportation (DOT) Requirements

Bulk

Basic shipping requirements:

Proper shipping name Flammable liquids, n.o.s. (Methanol)
Hazard class 3
UN number UN1993
Packing group III

Additional information:

Packaging non bulk 202
Packaging bulk 242
ERG number 128





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Canadian Transportation of Dangerous Goods (TDG) Requirements

Basic shipping requirements:

Proper shipping name FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol)
Hazard class 3
Subsidiary hazard class 6.1
UN number UN1992
Packing group III
Additional information:
Special provisions 16
ERG number 128



IMDG

Basic shipping requirements:

Proper shipping name FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol)
Hazard class 3
Subsidiary hazard class 6.1
UN number 1992
Packing group III



IATA

Basic shipping requirements:

Proper shipping name Flammable liquid, n.o.s. (Methanol)
Hazard class 3
UN number 1993
Packing group III



15. Regulatory Information

Labelling

Contains Acetic Acid, Ammonium bisulfite, Methanol

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

FEMA (Flavor and Extract Manufacturers Association) - FEMA Numbers

Acetic Acid 64-19-7 2006

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Methanol 67-56-1 1.0 % de minimis concentration

U.S. - FDA - Direct Food Additives

Methanol 67-56-1 21 CFR 173.250

U.S. - FDA - Food Additives Generally Recognized as Safe (GRAS)

Acetic Acid 64-19-7 21 CFR 184.1005



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Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

Methanol: 5000.0000
 Ammonium bisulfite: 5000.0000
 Acetic Acid: 5000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

International regulations

Canada - WHMIS - Ingredient Disclosure List

Acetic Acid	64-19-7	1 %
Ammonium bisulfite	10192-30-0	1 %
Methanol	67-56-1	1 %



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State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - Massachusetts - Right To Know List

Acetic Acid	64-19-7	Present
Ammonium bisulfite	10192-30-0	Present
Methanol	67-56-1	Present

U.S. - Minnesota - Hazardous Substance List

Acetic Acid	64-19-7	Present
Methanol	67-56-1	Skin

U.S. - New Jersey - Right to Know Hazardous Substance List

Acetic Acid	64-19-7	sn 0004
Ammonium bisulfite	10192-30-0	sn 0090
Methanol	67-56-1	sn 1222

U.S. - Pennsylvania - RTK (Right to Know) List

Acetic Acid	64-19-7	Environmental hazard
Ammonium bisulfite	10192-30-0	Environmental hazard
Methanol	67-56-1	Environmental hazard

U.S. - Rhode Island - Hazardous Substance List

Acetic Acid	64-19-7	Toxic; Flammable
Methanol	67-56-1	Toxic; Flammable

U.S. - Texas - Effects Screening Levels - Long Term

Acetic Acid	64-19-7	10 ppb ESL; 25 µg/m3 ESL
Methanol	67-56-1	200 ppb ESL; 262 µg/m3 ESL

U.S. - Texas - Effects Screening Levels - Short Term

Acetic Acid	64-19-7	100 ppb ESL; 250 µg/m3 ESL
Methanol	67-56-1	2000 ppb ESL; 2620 µg/m3 ESL

16. Other Information

HMIS® ratings

Health: 2*
 Flammability: 3
 Physical hazard: 0

NFPA ratings

Health: 2
 Flammability: 3
 Instability: 0

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Disclaimer

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Issue date

June-21-2011

MSDS sections updated

Product and Company Identification; Alternate Trade Names