



HI-VALLEY CHEMICAL

LABORATORY PRODUCTS

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X-Ray Coolant

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: X-Ray Coolant
SDS Number: M-036
Revision Date: 2/24/2016
Version: 1

Supplier Details: High Valley Products, Inc.
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2 HAZARDS IDENTIFICATION

Classification of Substance

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

- Physical, Flammable Liquids, 2
- Health, Acute toxicity, 3 Oral
- Health, Acute toxicity, 3 Dermal
- Health, Acute toxicity, 3 Inhalation
- Health, Specific target organ toxicity - Single exposure, 1

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

- H225 - Highly flammable liquid and vapor
- H301 - Toxic if swallowed
- H311 - Toxic in contact with skin
- H331 - Toxic if inhaled
- H370 - Causes damage to organs

GHS Precautionary Statements:

- P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P233 - Keep container tightly closed.
- P240 - Ground/bond container and receiving equipment.
- P241 - Use explosion-proof electrical/ventilating/light/equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P270 - Do not eat, drink or smoke when using this product.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do.

Continue rinsing.
P307+311 - IF exposed: Call a POISON CENTER or doctor/physician.
P403+233 - Store in a well ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to local waste facility.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients		
CAS#	%	Chemical Name
7732-18-5	20-40%	Water
67-56-1	40-70%	Methanol
0	2-4%	Chevron Soluble Oil B

4 FIRST AID MEASURES

- Inhalation:** If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
- Skin Contact:** Promptly flush skin with soap water until all chemical is removed.
- Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.
- Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5 FIRE FIGHTING MEASURES

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture
Carbon oxides
Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
Further information
Use water spray to cool unopened containers.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

- Handling Precautions:** Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist. Keep away from sources of ignition. No smoking. Take measure to prevent the build up of electrostatic charge.
- Storage Requirements:** Keep away from heat, sparks, and flames. Store in cool/dry well ventilated area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- Personal Protective Equipment:** Personal protective equipment
Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-

face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min Material tested: Butoject (KCL 897 / Aldrich Z677647, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 31 min Material tested: Camatril (KCL 730 / Aldrich Z677442, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Exposure Guidelines

Water (7732-18-5) [20-40%] : no data available

Methanol (67-56-1) [40-70%]

Components with workplace control parameters

TWA 200 ppm USA. ACGIH Threshold Limit Values (TLV)
Headache Eye damage Substances for which there is a Biological Exposure Index or Indices (see BEI section) Danger of cutaneous absorption

STEL 250 ppm USA. ACGIH Threshold Limit Values (TLV)
Headache Eye damage Substances for which there is a Biological Exposure Index or Indices (see BEI section) Danger of cutaneous absorption

TWA 200 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -
260 mg/m³ 1910.1000
Skin notation

STEL 250 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -
325 mg/m³ 1910.1000
Skin notation

TWA 200 ppm USA. Occupational Exposure Limits (OSHA) - Table Z- 1
260 mg/m³ Limits for Air Contaminants
The value in mg/m³ is approximate.

TWA 200 ppm USA. NIOSH Recommended Exposure Limits
260 mg/m³
Potential for dermal absorption

ST 250 ppm USA. NIOSH Recommended Exposure Limits
325 mg/m³
Potential for dermal absorption

Appearance: Cloudy
Physical State: Liquid

Reactivity: No data available
Chemical Stability: Stable under recommended storage conditions.
Conditions to Avoid Identification: Heat, flames, sparks and incompatibles.
Materials to Avoid Identification: Strong Oxidizing Agents. Strong Acids. May react with metallic aluminum and generate hydrogen gas.
Hazardous Decomposition: Carbon oxides and formaldehyde when heated to decomposition.

Methanol (67-56-1) [40-70%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LDLO Oral - Human - 143 mg/kg Remarks: Lungs, Thorax, or Respiration: Dyspnea. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

LD50 Oral - rat - 1,187 - 2,769 mg/kg

Inhalation LC50 LC50 Inhalation - rat - 4 h - 128.2 mg/l

LC50 Inhalation - rat - 6 h - 87.6 mg/l

Dermal LD50 LD50 Dermal - rabbit - 17,100 mg/kg

Other information on acute toxicity no data available

Skin corrosion/irritation: Skin - rabbit - No skin irritation

Serious eye damage/eye irritation: Eyes - rabbit - No eye irritation

Respiratory or skin sensitisation: Maximisation Test - guinea pig - OECD Test Guideline 406 - Does not cause skin sensitisation.

Germ cell mutagenicity: Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation - negative Genotoxicity in vitro - in vitro assay - fibroblast - negative Mutation in mammalian somatic cells.

Genotoxicity in vivo - mouse - male and female - Intraperitoneal - negative

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Fertility classification not possible from current data.

Teratogenicity: Damage to fetus not classifiable

Specific target organ toxicity - single exposure (Globally Harmonized System):
Causes damage to organs.

Specific target organ toxicity - repeated exposure (Globally Harmonized System):
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard: No aspiration toxicity classification

Potential health effects: Inhalation Toxic if inhaled. May cause respiratory tract irritation. Ingestion Toxic if swallowed. Skin Toxic if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure: Methyl alcohol may be fatal or cause blindness if swallowed. Effects due to ingestion may include:, Headache, Dizziness, Drowsiness, metabolic acidosis, Coma, Seizures. Symptoms may be delayed., Damage of the:, Liver, Kidney

Synergistic effects: no data available

Additional Information:

RTECS: PC1400000

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains diethylene glycol (DEG). The estimated oral lethal dose is about 50 cc (1.6 oz) for an adult human. DEG has caused the following effects in laboratory animals: liver abnormalities, kidney damage and blood abnormalities. It has been suggested as a cause of the following effects in humans: liver abnormalities, kidney damage, lung damage and central nervous system damage.

This product contains 2-butoxyethanol (2-BE, CAS# 111-76-2). 2-BE is not considered a significant acute or chronic toxicity hazard in humans. A validated physiologically based pharmacokinetic model indicates that humans receiving extensive dermal or inhalation exposure to 2-BE would not receive a toxic dose of 2-butoxyacetic acid (Appl. Occup. Environ. Hyg. 8:580-586, 1993), the metabolite principally responsible for the observed toxicity of 2-BE in laboratory animals. This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

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ECOLOGICAL INFORMATION

Methanol (67-56-1) [40-70%]

Information on ecological effects

Toxicity:

Toxicity to fish mortality LC50 - *Lepomis macrochirus* (Bluegill) - 15,400.0 mg/l - 96 h.

NOEC - *Oryzias latipes* - 7,900 mg/l - 200 h

Toxicity to daphnia EC50 - *Daphnia magna* (Water flea) - > 10,000.00 mg/l - 48 h.
and other aquatic invertebrates

Toxicity to algae Growth inhibition EC50 - *Scenedesmus capricornutum* (fresh water algae) - 22,000.0 mg/l - 96 h

Persistence and degradability: Biodegradability aerobic Result: 72 % - rapidly biodegradable

Bioaccumulative potential: Bioaccumulation *Cyprinus carpio* (Carp) - 72 d at 20 °C Bioconcentration factor (BCF): 1.0

Mobility in soil: Will not adsorb on soil.

PBT and vPvB assessment: Results of PBT This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This assessment substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Other adverse effects: Biochemical Oxygen 600 - 1,120 mg/g Demand (BOD)

Chemical Oxygen 1,420 mg/g Demand (COD)

Additional ecological Avoid release to the environment. information

Water (7732-18-5) [20-40%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: not applicable

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14 TRANSPORT INFORMATION

UN 1230, Methanol Solution, 3, PG II

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Water (7732-18-5) [20-40%] TSCA

RQ(5000LBS), Methanol (67-56-1) [40-70%] CERCLA, HAP, MASS, NJHS, OSHAWAC, PA, SARA313, TOXICRCRA, TSCA, TXAIR, TXHWL



WARNING

This product can expose you to chemicals including Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Regulatory CODE Descriptions

RQ = Reportable Quantity
TSCA = Toxic Substances Control Act
CERCLA = Superfund clean up substance
HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
OSHA = OSHA workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
SARA313 = SARA 313 Title III Toxic Chemicals
TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
TXAIR = TX Air Contaminants with Health Effects Screening Level
TXHWL = TX Hazardous Waste List

16 OTHER INFORMATION

Disclaimer:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

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