SSW-907 (WB H2S Scav)

SECTION 1. IDENTIFICATION

Product Identifier	SSW-907 (WB H2S Scav)
Product Family	Hydrogen Sulfide Scavenger
Recommended Use	Drilling Fluid Additive.
Supplier Identifier	Bri-Chem Supply Ltd., Bay 4, 5510 - 3rd Street SE, Calgary, Alberta, T2H 1J9, Bri-Chem Supply, 403-252-5904, www.brichemsupply.com
Emergency Phone No.	ChemTrec, (800) 424-9300, 24/7

SECTION 2. HAZARD IDENTIFICATION

Classification

Flammable liquid - Category 3; Acute toxicity (Oral) - Category 4; Acute toxicity (Dermal) - Category 3; Acute toxicity (Inhalation) - Category 4; Skin corrosion - Category 1; Serious eye damage - Category 1; Skin sensitization - Category 1; Carcinogenicity - Category 1A; Reproductive toxicity - Category 1B; Specific target organ toxicity (single exposure) - Category 1

Label Elements

Signal Word:
Danger
Hazard Statement(s):
Flammable liquid and vapour.
Harmful if swallowed.
Toxic in contact with skin.
Harmful if inhaled.
May damage fertility or the unborn child.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause cancer.
Causes damage to organs.
Precautionary Statement(s):
Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Do not breathe dust/fume/gas/mist/vapours/spray.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Use explosion-proof electrical, ventilating, and lighting equipment.

Use non-sparking tools.
Ground and bond container and receiving equipment.
Take precautionary measures against static discharge.
Response:
Specific treatment (see supplemental first aid instruction on this label).
If exposed or concerned: Call a POISON CENTRE or doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
Storage:
Store locked up.
Disposal:
Dispose of contents/container to an approved waste disposal plant.

Other Hazards

Harmful to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Hexahydro-1,3, 5-tris(2-hydoxyethyl)-s-triazine	4719-04-4	30-60		
Formaldehyde	50-00-0	7-13		
Methanol	67-56-1	5-10		
Monoethanolamine	141-43-5	1-5		
Water	7732-18-5	Balance		

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove to fresh air, restore or assist breathing if necessary, obtain medical attention immediately.

Skin Contact

Remove contaminated clothing and shoes. In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. If irritation persists get medical attention.
Wash contaminated clothing before reuse. Thoroughly clean contaminated shoes. Prolonged contact with methanol may defat skin tissue, resulting in drying and cracking.

Eye Contact

In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Ingestion

If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical help immediately.Swallowing methanol is life threatening. Onset of symptoms may be delayed for 18 to 24 hours after ingestion.

First-aid Comments

Treatment based on sound judgment of physician and individual reactions of patient.

Most Important Symptoms and Effects, Acute and Delayed

Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure.
Symptoms and signs are usually limited to CNS, eyes and gastrointestinal tract.Because of the initial CNS's effects of

headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication.
Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate is recommended. In cases of methanol poisoning, medical care must emphasize the control of acidosis. The use of intravenous bicarbonate has been lifesaving. Evidence shows that the treatment of methanol absorption is enhanced through the administration of ethanol, which should be given to produce a blood level of at least 0.1%. Ethanol diminishes the production of the toxic metabolites of methanol. A blood methanol level of 50 mg/100 ml is an indication for hemodialysis, which has improved the prognosis of methanol intoxication. If more than 2.0 ml/kg has been ingested, vomiting should be induced with supervision.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

DRY chemicals, CO2, alcohol foam or water spray.

Specific Hazards Arising from the Product

Flash Point: 40°C / 104°F (CC)
Autoignition Temperature: 385°C / 725°F
Flammable Limits in Air(%): Lower: 6% Upper: 36%
Flammable Liquid. Methanol burns with a clean clear flame that is almost invisible in day light. Concentrations greater than 25% methanol in water can be ignited.
Hazardous Combustion Products: Oxides of carbon (CO, CO2) and nitrogen (NO, NO2). Formaldehyde.

Special Protective Equipment and Precautions for Fire-fighters

Isolate and restrict area access.Stay upwind. Use fine water spray or fog to control fire spread and cool adjacent structures or containers. Vapours are heavier than air and may accumulate in low areas. Vapours may travel along the ground to be ignited at distant locations.
Contain fire control water for later disposal. Closed containers may rupture violently or explode and suddenly release large amounts of product when exposed to fire or excessive heat for a sufficient period of time.
Fire fighters must wear full face, positive pressure, self-contained breathing apparatus and appropriate protective clothing. Note that methanol fires may require proximity suits.Do not walk through spilled product.Thoroughly decontaminate bunker gear and other fire-fighting equipment before re-use.
Firefighters should wear a full-body encapsulating chemical protective suit with positive-pressure self-contained breathing apparatus (SCBA).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Use appropriate personal protective equipment. Remove personnel and keep upwind of spill. Shut off all ignition sources, no flares, smoking or flames in hazard area. Approach release from upwind. Shut off leak if it can be done safely. Contain spilled material. Keep out of waterways.
Small spill: add absorbent material, scoop up and place in a sealed, liquid-proof container.
Large spill: dike and use non-sparking or explosion-proof means to transfer material to an appropriate container for disposal. Fluorocarbon alcohol resistant foams may be applied to spill to diminish vapour and fire hazard.

Other Information

Flammable vapours may form an ignitable mixture with air. Vapours may travel a considerable distance from the spill and flash back if ignited.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear appropriate personal protective equipment and avoid contact with skin, eyes and clothing. Avoid inhalation of the vapours/spray. Use only with adequate ventilation. To avoid fire or explosion, ground container equipment and personnel before handling product. DO NOT pressurize, cut, heat, or weld containers. Empty containers may contain hazardous product residues.Keep containers closed when not in use. Protect against any physical damage.

Conditions for Safe Storage

Store in a cool, dry, well-ventilated area away from incompatible materials. Keep away from heat, sparks and flame. Keep containers tightly closed and dry. Tanks must be grounded and vented and should have vapour emission controls. Tanks must be diked.Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol
Alberta OEL TWA: 200 ppm; 262 mg/m³
STEL: 250 ppm; 328 mg/m³ Skin
British Columbia OEL TWA: 200 ppm
STEL: 250 ppm Skin
Ontario: TWA: 200 ppm
STEL:250 ppm Skin
Quebec OEL STEL: 250 ppm
TLV-TWA: 200 ppm
ACGIH STEL: 250 ppm
ACGIH TLV-TWA: 200 ppm
IDLH: 6000 ppm
Monoethanolamine
Alberta OEL TWA: 3 ppm; 7.5 mg/m³
STEL: 6 ppm; 15 mg/m³
British Columbia OEL TWA: 3 ppm
STEL: 6 ppm
Ontario TWA: 3 ppm
STEL: 6 ppm
Quebec OEL TWA: 3 ppm; 7.5 mg/m³
STEL: 6 ppm; 15 mg/m³
ACGIH STEL: 6 ppm
ACGIH TLV-TWA: 3 ppm
IDLH: 30 ppm
Formaldehyde
ACGIH TLV STEL C: 1 ppm
OEL: 0.75 ppm
OEL = Occupational Exposure Limit
TWA = Time-Weighted Average.
STEL = Short-term Exposure Limit.
TLV® = Threshold Limit Value.
ACGIH® = American Conference of Governmental Industrial Hygienists.
IDLH = Immediately Dangerous to Life or Health
C = Ceiling limit.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapours below the respective threshold limit value. Ensure that eyewash stations and safety showers are near the workstation location.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Wear long-sleeved shirt, chemically-resistant gloves, chemically-resistant boots and/or overshoes to prevent repeated or prolonged skin contact. Rubber, neoprene or vinyl gloves are recommended.

Respiratory Protection

Respirator use is not expected to be necessary under normal conditions of use. In poorly ventilated areas, emergency situations or if high exposure levels are exceeded, use a NIOSH-approved full-face respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Light yellow liquid.
Odour	Aromatic
Odour Threshold	Not available
pH	10.1
Melting Point/Freezing Point	Not applicable (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	40 ºC (closed cup)
Evaporation Rate	Not available
Upper/Lower Flammability or Explosive Limit	36% (upper); 6% (lower)
Vapour Pressure	Not available
Relative Density (water = 1)	1.031 at 20 ºC
Solubility	Soluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	385 ºC
Decomposition Temperature	Not available
Viscosity	Not available (kinematic)

Other Information

Physical State	Liquid
Molecular Formula	Not available
Molecular Weight	Not available
Surface Tension	Not available
Vapour Pressure at 50 deg C	Not available

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Hazardous polymerization is not expected to occur.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Incompatible materials.

Incompatible Materials

Strong oxidizers.Acids. Strong bases.
May be corrosive to lead, aluminum, magnesium, and platinum.May react with metallic aluminum or magnesium and generate hydrogen gas. May attack some forms of plastic, rubber, and coatings.

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide. Oxides of nitrogen. Formaldehyde.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; skin absorption; eye contact; ingestion.

Acute Toxicity

Methanol
LC50 Inhalation Rat: 22500 ppm 8 h
Formaldehyde
LC50 Inhalation Rat: 205 ppm 4 h
Hexahydro-1,3,5-tris(2-hydroxyethyl)-s-triazine
LD50 Oral Rat: 763 mg/kg
Methanol
LD50 Oral Rat: 6200 mg/kg
Monethanloamine
LD50 Oral Rat: 1720 mg/kg
Formaldehyde
LD50 Oral Rat:100 mg/kg
Water
LD50 Oral Rat: >90 ml/kg
Monoethanloamine
LD50 Dermal Rabbit: 1000 mg/kg
Formaldehyde
LD50 Dermal Rabbit: 27 mg/kg

Skin Corrosion/Irritation

Causes burns.May cause sensitization by skin contact. May be absorbed through skin in toxic or lethal amounts.Symptoms of exposure may include: central nervous depression with headache, stupor, uncoordinated or strange behavior or unconsciousness.Prolonged or repeated skin contact with methanol soaked material has produced toxic effects including vision effects and death.

Serious Eye Damage/Irritation

High vapour concentration or liquid contact with eyes causes irritation, tearing and burning. Causes eye burns. May cause permanent eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Causes irritation of the respiratory tract, experienced as nasal discomfort and discharge, with chest pain and coughing. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure

Ingestion

May be fatal if swallowed. may cause burns of the mouth, throat and stomach. A small amount of methanol (usually two or more ounces) can cause mental sluggishness, nausea and vomiting leading to severe illness, and may produce adverse effects on vision with possible blindness or death if treatment is not received.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Repeated exposure by inhalation or absorption of methanol may cause systemic poisoning, brain disorders, impaired vision and blindness. Inhalation may worsen conditions such as emphysema or bronchitis. Repeated skin contact may cause dermal irritation, dryness and cracking. Effects of sub lethal doses may be nausea, headache, abdominal pain, vomiting and visual disturbances ranging from blurred vision to light sensitivity. Methanol is toxic by inhalation and ingestion. Inhalation of vapours may cause cyanosis, CNS effects lethargy, loss of consciousness and death. The effects from inhalation may be delayed. Ingestion may cause malaise, CNS effects, discomfort, and death if not treated promptly.Ingestion of methanol has resulted in adverse effects (necrosis and hemorrhaging) in the brain. Medical conditions aggravated by exposure include: skin disorders and allergies, liver disorders and eye disease.Undocumented reports suggest that this product may form a siloxane polymer on the eyes, lungs, or other mucous membranes. Long term exposure to methanol has been associated with headaches, giddiness, conjunctivitis, insomnia and impaired vision. Dermal absorption of significant amounts of methanol resulted in death in several animal species. Toxic effects in animal exposed to methanol by inhalation include eye irritation, blindness and nasal discharge. Toxic effects observed in animals exposed to methanol by ingestion include CNS effects, gastrointestinal effects,

anesthetic effects, damage to the optic nerve and acidities.

Respiratory and/or Skin Sensitization

May cause sensitization by skin contact.

Carcinogenicity

Formaldehyde
IARC: Group 1
ACGIH: A2

Key to Abbreviations

IARC = International Agency for Research on Cancer.
Group 1 = Carcinogenic to humans.
ACGIH® = American Conference of Governmental Industrial Hygienists.
A2 = Suspected human carcinogen.

Reproductive Toxicity

Development of Offspring

Monoethanolamine was teratogenic and ferotoxic in rats when given by gavage at doses up to 500 mg/kg/day on days 6-15 of gestation. Dose-related maternal toxicity was present in the form of skin irritation or lesions and changes in maternal body weight.
Embryotoxicity and ferotoxicity were seen with maternal exposure to airborne concentrations of 7500 ppm and above and reduced fetal weight with concentrations of 10,000 ppm or greater. The "no observed adverse effect level" (NOAEL) was 1000 ppm. Effects similar to those seen in the 10,000 ppm dosage group were seen in offspring of mice given a dosage of 4 g/kg orally.

Sexual Function and Fertility

Methanol has caused birth defects in rats exposed to the oral and inhalation routes. Exencephaly (a defect in the skull bone structure that leaves the brain exposed) and cleft palate were increased in feral mice exposed to methanol at an airborne concentration of 5000 ppm or higher for 7 hrs/day on days 6-15 of gestation.

Germ Cell Mutagenicity

Methanol was mutagenic in yeast. It has caused chromosome aberrations in yeast and grasshoppers.

SECTION 12. ECOLOGICAL INFORMATION

May be harmful to aquatic life.

Ecotoxicity

Methanol
LC50 Oncorhynchus mykiss: 13200 mg/L
LC50 Pimephales promelas: 28100 mg/L 96 hrs
LC50 Lepomis macrochirus: 15400 mg/L 96 hrs
EC50 Daphnia magna: 24500 mg/L 48 hrs
EC50 Selenastrum capricornutum: 7.1 mg/L 48 hrs
Monoethanolamine
LC50 Oncorhynchus mykiss: 114-196 mg/L 96 hrs static
LC50 Lepomis macrochirus: 300-1000 mg/L96 hrs static
LC50 Pimephales promelas: 227 mg/L 96 hrs flow-through
LC50 Brachydanio rerio:3684 mg/L 96 hrs static
LC50 Oncorhynchus mykiss: 200 mg/L 96 hrs flow-through
EC50 Desmodesmus subspicatus: 15 mg/L 72 hrs

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Incineration is the recommended disposal method. Methanol wastes are not suitable for underground injection.Biological treatment may be used on dilute aqueous waste methanol. Dispose of according to Federal, Provincial or Municipal guidelines or laws.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN3286	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (METHANOL)	3 (6.1, 8)	II

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

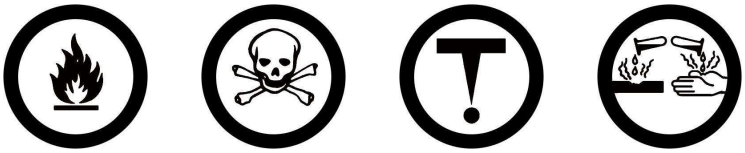
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification



Class B2 Class D1B Class D2A; D2B Class E

B2 - Flammable Liquid; D1B - Toxic; D2A - Very Toxic (Chronic toxicity); D2B - Toxic (Skin irritant; Eye irritant); E - Corrosive

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

SECTION 16. OTHER INFORMATION

NFPA Rating **Health - 3** **Flammability - 1** **Instability - 0**

SDS Prepared By Bri-Chem Supply Ltd

Phone No. (403) 252-5904

Date of Preparation December 28, 2020

Date of Last Revision October 12, 2018

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