

ARLOX HSO 600

SECTION 1. IDENTIFICATION

Product Identifier	ARLOX HSO 600
Product Family	Hydrogen Sulfide Scavenger
Recommended Use	Drilling Fluid Additive.
Supplier Identifier	Bri-Chem Supply Ltd., 27075 Acheson Road, Acheson AB T7X 6B1, 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 (Inhalation) - Category 4; Skin corrosion - Category 1; Serious eye damage - Category 1; Carcinogenicity - Category 2; Aquatic hazard (Chronic) - Category 3

Label Elements



Signal Word:

Danger

Hazard Statement(s):

Flammable liquid and vapour.

Harmful if inhaled.

Causes severe skin burns and eye damage.

Suspected of causing cancer.

Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention:

Obtain special instructions before use.

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

Wear protective gloves:> 8 hours (breakthrough time). Nitrile or Neoprene gloves. Butyl rubber gloves. Wear eye or face protection Wear protective clothing.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Avoid breathing vapour.

Wash hands thoroughly after handling.

Response:

IF exposed or concerned: Get medical advice or attention.

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

Immediately call a POISON CENTRE or doctor.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTRE or doctor.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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Wash contaminated clothing before reuse.
Immediately 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.
Immediately call a POISON CENTRE or doctor.
Storage:
Store locked up.
Disposal:
Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
1,2,4-Trimethylbenzene	95-63-6	5-10		
Amine compound	20280-10-8	60-70		
1,2,3-Trimethylbenzene	526-73-8	1-5		
1,3,5-Trimethylbenzene	108-67-8	1-5		
Light aromatic naphtha	64742-95-6	10-20		
Xylene	1330-20-7	5-10		
Amine compound	20280-10-8	1-5		
Ethylbenzene	100-41-4	0.1-1		
Cumene	98-82-8	0.1-1		

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. If not breathing, administer artificial respiration and seek medical attention. Get medical attention if symptoms appear.

Skin Contact

Remove and launder contaminated clothing and footwear. Wash contaminated skin with soap and water for at least 15 minutes or until no evidence of material remains. If skin irritation occurs, get medical advice or attention.

Eye Contact

Immediately flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Ingestion

DO NOT INDUCE VOMITING unless directed to do so by medical personnel. Never give anything by mouth to an unconscious or convulsing victim. Seek medical attention if symptoms appear.

Most Important Symptoms and Effects, Acute and Delayed

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

If product is ingested and vomiting occurs naturally, have person lean forward to reduce the risk of aspiration into the lungs.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Dry chemical, carbon dioxide, foam, water fog.

Unsuitable Extinguishing Media

DO NOT use water jet.

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Specific Hazards Arising from the Product

Flammable liquid and vapour.

In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous Combustion Products: Oxides of carbon (CO, CO₂) and nitrogen (NO, NO₂).

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area and fight fire from a safe distance. Use water spray from a safe distance to cool fire-exposed containers. Keep water run-off out of sewers and public waterways.

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 (soil may be used in the absence of other suitable materials), 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.

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.

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

1,2,4-Trimethylbenzene

ACGIH TLV TWA: 123 mg/m³, 0 times per shift, 8 hours

TWA: 25 ppm, 0 times per shift, 8 hours

Xylene

ACGIH TLV STEL: 651 mg/m³, 0 times per shift, 15 minutes

STEL: 150 ppm, 0 times per shift, 15 minutes

TWA: 434 mg/m³, 0 times per shift, 8 hours

TWA: 100 ppm, 0 times per shift, 8 hours.

1,3,5-Trimethylbenzene

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ACGIH TLV TWA: 123 mg/m³, 0 times per shift, 8 hours

TWA: 25 ppm, 0 times per shift, 8 hours

1,2,3-Trimethylbenzene

ACGIH TLV TWA: 123 mg/m³, 0 times per shift, 8 hours

TWA: 25 ppm, 0 times per shift, 8 hours

Ethylbenzene

ACGIH TLV TWA: 20 ppm, 0 times per shift, 8 hours

Cumene

ACGIH TLV TWA: 50 ppm, 0 times per shift, 8 hours

ACGIH® = American Conference of Governmental Industrial Hygienists.

TLV® = Threshold Limit Value.

TWA = Time-Weighted Average.

STEL = Short-term Exposure Limit.

Consult local authorities for acceptable exposure limits.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapours below the respective threshold limit value. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosion limits. Use explosion-proof ventilation equipment.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles. When transferring material wear face-shield in addition to chemical safety goggles. If inhalation hazards exist, a full-face respirator may be required instead.

Skin Protection

Wear long-sleeved shirt, chemically-resistant gloves (nitrile, neoprene, rubber), chemically-resistant boots and/or overshoes to prevent repeated or prolonged skin contact.

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	Amber liquid. Particle Size: Not available
Odour	Aromatic
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	52.2 °C (closed cup)
Evaporation Rate	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	8.3 kPa
Vapour Density (air = 1)	> 1
Relative Density (water = 1)	0.822
Solubility	Dispersible in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); 2 centipoises at 15 °C (dynamic)

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Other Information

Physical State	Liquid
Molecular Formula	Not available
Molecular Weight	Not available
Bulk Density	Not available
Surface Tension	Not available
Critical Temperature	Not available
Vapour Pressure at 50 deg C	Not available
Saturated Vapour Concentration	Not available
Other Physical Property 1	Pour Point: -40°C
Other Physical Property 2	Flammability: Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

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. Do not pressurize, cut, weld, braz, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.

Incompatible Materials

Oxidizing materials. Acids avoid agents (such as nitrates or nitrites) and conditions that could produce nitrosamines which are considered to be possible human carcinogens.

Hazardous Decomposition Products

Under normal conditons of storage and use, hazardous decomposition products will not be produced.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; eye contact; inhalation.

Acute Toxicity

1,2,4-Trimethylbenzene

LC50 Inhalation Rat: 18000 mg/m³, 4 hours

Xylene

LC50 Inhalation Rat: 5000 ppm, 4 hours

1,3,5-Trrimethylbenzene

LC50 Inhalation Rat: 24000 mg/m³, 4 hours

Amine compound

LC50 Inhalation Rat: 218 ppm, 4 hours

Cumene

LC50 Inhalation Mouse: 10000 mg/m³, 7 hours

LC50 Inhalation Rat: 39000 mg/m³, 4 hours

Light aromatic naphta

LD50 Oral Rat: 2900 mg/kg

1,2,4-Trimethylbenzene

LD50 Oral Rat: 5 g/kg

Xylene

LD50 Oral Male rat: 3523 mg/kg

LD50 Oral Rat: 4300 mg/kg

1,3,5-Trimethylbenzene

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LD50 Oral Rat: 5000 mg/kg

Amine compound

LD50 Oral Rat: 189 mg/kg

Ethylbenzene

LD50 Oral Rat: 3500 mg/kg

Cumene

LD50 Oral Rat: 2.9 g/kg

Amine compound

LD50 Dermal Rat: > 2000 mg/kg

Xylene

LD50 Dermal Rabbit: > 1700 mg.kg

Amine compound

LD50 Dermal Rabbit: 770 mg/kg

Ethylbenzene

LD50 Dermal Rabbit: 15400 mg/kg

Cumene

LD50 Dermal Rabbit: 10600 mg/kg

Skin Corrosion/Irritation

Causes severe burns. Pain or irritation, redness, blistering may occur.

Serious Eye Damage/Irritation

Causes serious eye damage. Pain, watering, redness may occur.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Harmful if inhaled.

Ingestion

No known significant effects or critical hazards. Stomach pains.

Aspiration Hazard

Light aromatic naphta: Category 1

Xylene: Category 1

1,2,3-Trimethylbenzene: Category 1

Cumene: Category 1

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Ethylbenzene

Category 2

Route of exposure: Not determined

Target organs: hearing organs

Respiratory and/or Skin Sensitization

No applicable toxicity data.

Carcinogenicity

Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Xylene

IARC: 3

Ethylbenzene

IARC; 2B

Cumene

IARC: 2B

NTP: Reasonable anticipated to be a human carcinogen

Key to Abbreviations

IARC = International Agency for Research on Cancer.

Group 2B = Possibly carcinogenic to humans.

Group 3 = Not classifiable as to its carcinogenicity to humans. NTP = National Toxicology Program.

NTP = National Toxicology Program.

Reasonably anticipated = Reasonably anticipated human carcinogen.

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Reproductive Toxicity

Development of Offspring

No known significant effects or critical hazards.

Sexual Function and Fertility

No known significant effects or critical hazards.

Germ Cell Mutagenicity

No known significant effects or critical hazards.

No information was located for: Effects on or via Lactation, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

1,2,4-Trimethylbenzene

Acute LC50 Crustaceans - *Elasmopus pecteniscus*: 4910 µg/l marine water, 48 hours

Acute LC50 Fish - *Tilapia zillii*: 22.4 mg/l fresh water, 96 hours

Xylen

Acute LC50 Crustaceans - *Palaemonetes pugio*: 8500 µg/l marine water

Acute LC50 Fish - *Pimephales promelas*: 13400 µg/l fresh water, 96 hours

1,3,5-Trimethylbenzene

Acute LC50 Fish - *Carassius auratus*: 12520 to 15050 µg/l fresh water, 96 hours

Chronic NOEC Daphnia - *Daphnia magna*: 400 µg/l fresh water, 21 days

Amine compound

Acute EC50 Algae - *Pseudokirchneriella*: 19 mg/l fresh water, 96 hours

Acute LC50 Fish - *Oncorhynchus mykiss*: 5.5 mg/l fresh water, 96 hours

Ethylbenzene

Acute EC50 Algae - *Pseudokirchneriella*: 4600 µg/l fresh water, 72 hours

Acute EC50 Daphnia - *Daphnia magna*: 2930 to 4400 µg/l fresh water, 48 hours

Acute LC50 Crustaceans - *Americamysis bahai*: 5200 µg/l marine water, 48 hours

Acute LC50 Fish - *Oncorhynchus mykiss*: 4200 µg/l fresh water, 96 hours

Chronic NOEC Algae - *Pseudokirchneriella subcapitata*: 1000 µg/l fresh water, 96 hours

Cumene

Acute EC50 Algae - *Pseudokirchneriella subcapitata*: 2600 µg/l fresh water, 72 hours

Acute LC50 Crustaceans - *Artemia* sp.: 7400 to 11290 µg/l fresh water

Acute LC50 Daphnia - *Daphnia magna*: 30500 µg/l fresh water, 48 hours

Acute LC50 Fish - *Oncorhynchus mykiss*: 2700 µg/l fresh water, 96 hours

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Acute EC50 Algae: 8.9 mg/l, 96 hours

Acute LC50 Fish: 13 mg/l, 96 hours

Acute LC50 Fish: 47 mg/l, 96 hours

Acute LC50 Fish: 70 mg/l, 96 hours

Persistence and Degradability

Not available.

Other Adverse Effects

No known significant effects or critical hazards.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with federal, provincial and local government regulations. Note that these regulations may also apply to empty containers, liners and rinsate. Incineration or landfill should only be considered when recycling is not feasible. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Contains: Amine compound, Light aromatic naphtha)	8 (3)	II
Canadian TDG	2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Contains: Amine compound, Light aromatic naphtha)	8 (3)	II

Special Precautions Please note: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

Transport in Bulk Not available.

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

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

All components are listed or exempted on the DSL/NDSL.

USA

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

All ingredients are on the TSCA Inventory or are exempt from TSCA.

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 3 Flammability - 2 Instability - 0

SDS Prepared By Bri-Chem Supply Ltd

Phone No. (403) 252-5904

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Disclaimer This Health and Safety information is correct to the best of our knowledge and belief at the date of its publication, but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as guidance for safe handling, storage, and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.

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