



MATERIAL SAFETY DATA SHEET

1. Product and company identification

Product name	ARI 802
Manufacturer	
Company Name	Merichem Company
Address	5455 Old Spanish Trail Houston, TX 77023 United States
Emergency Telephone	For Chemical Emergency ONLY: CHEMTREC®, Russia (toll free): 8-800-100-6346 (in country only)
General Information	+1 713-428-5000
Fax	+1 713-936-3634
E-Mail	msdsinquiry@merichem.com
Only Representative	
Company Name	Merichem Europe Limited
Address	Michail Georgiou 70 Atheniou P.C. 7600 Lamarca, Cyprus
Recommended use	Industrial desulfurization application
Limitations on use	Not available.
MSDS No.	Not available.

2. Hazards identification

Hazard classification		
Physical hazards	Flammable liquids	Category 4
Health hazards	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Specific target organ toxicity, repeated exposure	Category 2 (bone marrow, liver, spleen)
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

Label elements



Signal word	Danger
Hazard statement	
H227	Combustible liquid.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H373	May cause damage to organs (bone marrow, liver, spleen) through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	
P210	Keep away from flames and hot surfaces-No smoking.
P260	Do not breathe mist or vapor.
P264	Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.

Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use appropriate media for extinction.
P391 Collect spillage.

Storage

P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards None known.

Supplemental information None.

3. Composition/information on ingredients

Substance or mixture Mixture

Chemical property	CAS Number	Concentration (%)
Petroleum hydrocarbon	64741-44-2	30,0 - 60,0%
Distillates (petroleum), hydrotreated light	64742-47-8	10,0 - 20,0%
Polypropylene glycol	25322-69-4	5,0 - 10,0%
Aliphatic alcohol 1	Proprietary *	1,0 - 5,0%
Aliphatic alcohol 2	Proprietary *	1,0 - 5,0%
Paraffin wax	8002-74-2	≤ 1,0%

Composition comments *Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Substance classification in accordance with GOST 12.1.007:

Petroleum hydrocarbon (CAS-no. 64741-44-2): Class 4 (low-hazard substance).

Distillates (petroleum), hydrotreated light (CAS-no. 64742-47-8): Class 4 (low-hazard substance).

Polypropylene glycol (CAS-no. 25322-69-4): Class 4 (low-hazard substance).

Aliphatic Alcohol 1 (CAS-no. Proprietary): Class 4 (low-hazard substance).

Aliphatic Alcohol 2 (CAS-no. Proprietary): Class 4 (low-hazard substance).

Paraffin wax (CAS-no. 8002-74-2): Class 4 (low-hazard substance).

4. First aid measures

First aid measures for different exposure routes

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Call a physician or poison control center immediately. DO NOT INDUCE VOMITING. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms and effects Aspiration may cause pulmonary edema and pneumonitis. Direct contact with eyes may cause temporary irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Notes to physician Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General advice If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

General fire hazards	The product is a combustible liquid in accordance with GOST 12.1.044.
Suitable extinguishing media	Alcohol resistant foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards during fire fighting	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Special fire fighting procedures	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved.
Personal protective equipment for fire-fighting	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the MSDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.
Clean-up methods and materials and containment measures	<p>Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will sediment in water systems.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.</p> <p>Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the MSDS.</p>

7. Handling and storage

Handling

Precautions	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Take precautionary measures against static discharges. Do not breathe mist or vapor. Do not get this material in contact with eyes. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash hands thoroughly after handling. Avoid release to the environment.
Safe handling advice	Avoid prolonged exposure. Observe good industrial hygiene practices. Use personal protection recommended in Section 8 of the MSDS.
Technical measures	No specific recommendations. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment.
Local and general ventilation	Use only outdoors or in a well-ventilated area.

Storage

Technical measures	No specific recommendations.
Suitable storage conditions	Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Keep container tightly closed. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the MSDS).
Incompatible materials	For further information, please refer to section 10 of the MSDS.
Safe packaging materials	Store in original tightly closed container.

8. Exposure controls/personal protection

Occupational exposure limits

Russian Federation. Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.

Components	Type	Value	Form
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	Ceiling	300 mg/m ³	Vapor.
	TWA	100 mg/m ³	Vapor.

Engineering measures

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister.

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Eye protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear appropriate chemical resistant clothing.

Hygiene measures

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Clear, yellow liquid.

Physical state

Liquid.

Form

Liquid.

Color

Yellow.

Odor

Hydrocarbon.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

< -22 °F (< -30 °C)

Initial boiling point and boiling range

270 °F (132,22 °C)

Flash point

197,0 °F (91,7 °C) Pensky-Martens Closed Cup

Combustion temperature

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)

Not available.

Vapor pressure

5,1 mmHg (37,8°C/100°F)

Density

Not available.

Viscosity

10 cP (22,2°C/72°F)

Solubility(ies)

Solubility (water)

Insoluble.

Partition coefficient (n-octanol/water)

Not available.

Evaporation rate	Not available.
Relative density	7 lb/gal (25°C/77°F)
Bulk density	Not applicable.
Other data	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	0,84 (25°C/77°F)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Strong bases.
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Acute toxicity May be fatal if swallowed and enters airways. Harmful if inhaled.

Product	Species	Test Results
ARI 802 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 3038 mg/kg
<i>Oral</i>		
LD50	Rat	> 15380 mg/kg

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Symptoms Aspiration may cause pulmonary edema and pneumonitis. Skin irritation. May cause redness and pain.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Russian Federation. Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.

Not Listed.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Petroleum hydrocarbon (CAS 64741-44-2)

3 Not classifiable as to carcinogenicity to humans.

Russian Federation. Sanitary-Epidemiological Rules, 1.2.2353-08, Chemical substances, mixtures and products which are carcinogenic factors, 21 April 2008

Not listed.

Toxic to reproduction This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure May cause damage to organs (bone marrow, liver, spleen) through prolonged or repeated exposure.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicological data

Product	Species		Test Results
ARI 802			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	130 mg/l, 48 hours
	LC50	Ceriodaphnia dubia	4,32 mg/l, 48 hours
		Daphnia magna	220 mg/l, 48 hours
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	121 mg/l, 96 hours
		Fathead minnow (<i>Pimephales promelas</i>)	190 mg/l, 96 hours
		Rainbow Trout	310 mg/l, 96 hours

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation	Not expected to bioconcentrate or bioaccumulate.
Mobility in soil	If released to the environment is expected to distribute in the following respective proportions: Air 10-30%; Water 30-50%; Soil/Sediment 30-50%.
Other hazardous effects	Oil spills are generally hazardous to the environment. The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Local disposal regulations	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

ADR	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

15. Regulatory information

Applicable regulations

Russian Federation. Sanitary-Epidemiological Rules, 1.2.2353-08, Chemical substances, mixtures and products which are carcinogenic factors, 21 April 2008

Not listed.

Ministry of Health and Social Development of Russian Federation. Order № 83 of 16.08.2004. List of hazardous and/or dangerous production factors and work under which preliminary and periodic medical examinations are conducted, methods of the examinations.

Not listed.

Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.

Distillates (petroleum), hydrotreated light (CAS 64742-47-8) Listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes

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

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

References

GOST 30333-2007 Chemical production safety passport. General requirements.
 GOST 31340-2013 Labeling of chemicals. General requirements.
 GOST 32419-2013 Classification of chemical products. General requirements.
 GOST 32424-2013 Classification of chemicals for environmental hazards. General principles.
 GOST 12.1.007-76 Occupational safety standard system. Noxious substances. Classification and general safety requirements.
 GOST 12.1.044-89. Occupational safety standards system. Fire and explosion hazard of substances and materials. Nomenclature of substances and materials. Nomenclature of indices and methods of their determination.
 GOST 19433-88. Dangerous goods. Classification and marking.
 GOST 12.1.004-91. Occupational safety standards system. Fire safety. General requirements.
 GOST 32425-2013 Mixtures classification of hazard for environmental.
 GOST 32423-2013 Mixtures classification of hazard for health.

Issued by

Not available.

Further information

The contents of this Safety Data Sheet are Merichem Company confidential and proprietary information.

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The information on this form is furnished solely for the purpose of enabling those who transport, handle or use our products to ensure the safety and health of their employees and to comply with various laws and regulations (federal, state and local). This information is offered in good faith and is believed to be accurate. Merichem Company, however, makes no guarantee or warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use hereof.

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