

The Dow Chemical Company encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. Product and Company Identification

Product Name

AM1023,AM1024

Cutting fluid for Diamond saws

COMPANY IDENTIFICATION

Alpha Resources Inc.
3090 Johnson Rd.
Stevensville, MI 49127

Phone Number:

269-465-5559

Email

sales@alpharesources.com

EMERGENCY NUMBER**24-Hour Emergency Contact:**

800-424-9300

2. Hazards Identification

Emergency Overview**Color:** Colorless to yellow**Physical State:** Liquid**Odor:** Mild**Hazards of product:****WARNING!** Harmful if inhaled. Keep upwind of spill.**Potential Health Effects****Eye Contact:** Essentially nonirritating to eyes. Corneal injury is unlikely.**Skin Contact:** Prolonged contact may cause slight skin irritation with local redness.**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts.**Inhalation:** At room temperature, exposure to vapor is minimal due to low volatility. Prolonged exposure to aerosol/mist may cause serious adverse effects, even death.**Ingestion:** Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.**Effects of Repeated Exposure:** Exposure to high concentrations of mist/aerosol may be associated with delayed lung damage.

3. Composition Information

Component	CAS #	Amount
Polyalkylene glycol monobutyl ether	9038-95-3	> 99.0 %

4. First-aid measures

Eye Contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact: Wash skin with plenty of water.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Ingestion: No emergency medical treatment necessary.

Notes to Physician: Maintain adequate ventilation and oxygenation of the patient. Exposure to high concentrations of mist/aerosol may be associated with delayed lung damage. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Medical Conditions Aggravated by Exposure: Repeated excessive exposure may aggravate preexisting lung disease.

5. Fire Fighting Measures

Extinguishing Media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

6. Accidental Release Measures

Steps to be Taken if Material is Released or Spilled: Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

Personal Precautions: Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to Section 7, Handling, for additional precautionary measures.

Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

7. Handling and Storage

Handling

General Handling: Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Storage

Store in the following material(s): 316 stainless steel. Carbon steel. Glass-lined container. Polypropylene. Polyethylene-lined container. Stainless steel. Teflon. This material may soften and lift certain paint and surface coatings. Use product promptly after opening. Store in original unopened container.

Shelf life: Use within
24 Months

8. Exposure Controls / Personal Protection

Exposure Limits

None established

Personal Protection

Eye/Face Protection: Use safety glasses.

Skin Protection: Wear clean, body-covering clothing.

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Viton. Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

9. Physical and Chemical Properties

Physical State	Liquid
Color	Colorless to yellow
Odor	Mild
Odor Threshold	No test data available
Flash Point - Closed Cup	199 °C (390 °F) <i>ASTM D93</i>
Flash Point - Open Cup	241 °C (466 °F) <i>ASTM D92</i>
Flammability (solid, gas)	No
Flammable Limits In Air	Lower: No test data available Upper: No test data available
Autoignition Temperature	No test data available
Vapor Pressure	< 0.01 mmHg @ 20 °C <i>ASTM E1719</i>
Boiling Point (760 mmHg)	> 200 °C (> 392 °F) <i>Calculated</i> .
Vapor Density (air = 1)	>10 <i>Calculated</i>
Specific Gravity (H₂O = 1)	1.057 20 °C/20 °C <i>Calculated</i>
Freezing Point	See Pour Point
Melting Point	No test data available
Solubility in Water (by weight)	100 % <i>Visual</i>
pH	5.5 - 7.5 <i>ASTM E70</i> (10% dilution in water)
Molecular Weight	3930 g/mol <i>Calculated</i>
Decomposition Temperature	No test data available
Partition coefficient, n-octanol/water (log Pow)	No test data available
Evaporation Rate (Butyl Acetate = 1)	No test data available
Kinematic Viscosity	1,020 Cks @ 40 °C <i>ASTM D445</i>
Pour point	-36 °C (-33 °F) <i>ASTM D97</i>
Volatile Organic Compounds	0.0 g/l <i>EPA Method No. 24</i>

10. Stability and Reactivity

Stability/Instability

Thermally stable at recommended temperatures and pressures.

Conditions to Avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible Materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

Hazardous Polymerization

Will not occur.

Thermal Decomposition

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Alcohols. Ethers. Hydrocarbons. Ketones. Organic acids. Polymer fragments.

11. Toxicological Information

Acute Toxicity Ingestion

LD50, Rat, female > 47,248 mg/kg

LD50, Rat, male > 51,476 mg/kg

Skin Absorption

LD50, Rabbit > 21,140 mg/kg

Inhalation

LC50, 4 h, Aerosol, Rat 0.106 - 0.26 mg/l

Sensitization

Skin

A similar material did not cause allergic skin reactions when tested in humans.

Repeated Dose Toxicity

Exposure to high concentrations of mist/aerosol may be associated with delayed lung damage.

Chronic Toxicity and Carcinogenicity

Did not cause cancer in laboratory animals.

Developmental Toxicity

No relevant information found.

Reproductive Toxicity

No relevant information found.

Genetic Toxicology

No relevant information found.

12. Ecological Information

ENVIRONMENTAL FATE

Movement & Partitioning

No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).

Persistence and Degradability

Biodegradation under aerobic static laboratory conditions is moderate (BOD20 or BOD28/ThOD between 10 and 40%).

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method
7 %	28 d	OECD 301B Test

Biological oxygen demand (BOD):

BOD 5	BOD 10	BOD 20	BOD 28
6 %	13 %	24 %	

Chemical Oxygen Demand: 1.90 mg/mg

ECOTOXICITY

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, fathead minnow (Pimephales promelas), static, 96 h: 3,170 - 11,900 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, water flea Daphnia magna, 48 h, immobilization: 17,000 - 19,000 mg/l

Toxicity to Micro-organisms

EC50; bacteria, Growth inhibition, 16 h: 10,000 mg/l

13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE

NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

14. Transport Information

DOT Non-Bulk
NOT REGULATED

DOT Bulk
NOT REGULATED

IMDG
NOT REGULATED

ICAO/IATA
NOT REGULATED

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. Regulatory Information

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

US. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

European Inventory of Existing Commercial Chemical Substances (EINECS)

This product is a polymer according to the definition in Directive 92/32/EEC (7th Amendment to Directive 67/548/EEC) and all of its starting materials and intentional additives are listed in the European Inventory of Existing Commercial Chemical Substances (EINECS) or in compliance with European (EU) chemical inventory requirements.

CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

16. Other Information

Other Information

This product has clearances under FDA Food Additive Regulations. It is the responsibility of the user of this product as a Direct or Indirect Food Additive to read and understand all applicable FDA regulations in Title 21 of the Code of Federal regulations as well as any other applicable regulations.

Hazard Rating System

NFPA	Health	Fire	Reactivity
	1	1	0

Recommended Uses and Restrictions

Selection of the appropriate polyglycol product for a specific application requires knowledge of the fluid requirements of the application, awareness of the most important of these requirements, and a match-up with the properties of the various polyglycol materials. Polyglycol products can be formulated for use in numerous industry applications such as hydraulic fluids, quenchants, compressor and refrigeration lubricants, heat transfer fluids, machinery lubricants, solder assist fluids, metalworking lubricants, textile finishing, etc. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline

WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for