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Revision Date:

Version 1

1. IDENTIFICATION

Product Identifier**Product Name** APEX TORCH COOLANT**Other means of identification****SDS #****Recommended use of the chemical and restrictions on use****Recommended Use** Glycol/Water-based fluid for use as Plasma Arc Torch Coolant**Details of the supplier of the safety data sheet****Supplier Address**Ashburn Chemical Technologies
7403 Wright Rd
Houston, TX 77041**Emergency Telephone Number****Company Phone Number**

832-399-1000

Emergency Telephone (24 hr)INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Blue**Physical State** Liquid**Odor** Mild**Classification**

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

Hazard Symbol

N/A

Signal Word

None

Precautionary Statement

N/A

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Triethanolamine	102-71-6	1-5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures**General Advice**

Provide this SDS to medical personnel for treatment.

Eye Contact	Flush immediately with copious amounts of water for 15 minutes. If irritation persists, see physician.
Skin Contact	Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If skin irritation persists, call a physician.
Inhalation	Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Seek immediate medical assistance.
Ingestion	Do not induce vomiting without medical advice. Seek immediate medical attention/advice.

Most important symptoms and effects

Symptoms	May cause skin and eye irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Unsuitable Extinguishing Media Do not use straight streams.

Specific Hazards Arising from the Chemical Not determined.

Hazardous Combustion Products Oxides of carbon and nitrogen compounds.

Protective equipment and precautions for firefighters

Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus(SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
Environmental Precautions	Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so. Absorb or cover with dry earth, sand or other non-combustible material.
Methods for Clean-Up	Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. For waste disposal, see section 13 of the SDS. Contain large spills and pump into a suitable tank for disposal. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800) 424-8802.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing fumes, vapors, mists, spray. Wash face, hands, and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed and store in a cool, dry and well-ventilated place. Do not store in open or unlabeled containers. Store away from heat and open flame. Storage temperature > 40 F.

Incompatible Materials

Strong acids, alkalis, certain oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Triethanolamine 102-71-6	TWA: 5 mg/m ³	-	-
Propane-1,2-diol 57-55-6	TWA: 10 mg/m ³	-	-

Appropriate engineering controls

Engineering Controls

Maintain eye wash fountain and quick-drench facilities in work area.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

Respiratory Protection

Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations

Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State
Appearance
Color

Liquid
Clear liquid
Fluorescent

Odor
Odor Threshold

Mild
Not determined

Property

Values

Remarks • Method

pH

7.5 – 8.5

Melting Point/Freezing Point

Not determined

Boiling Point/Boiling Range

100 °C / 212 °F

Flash Point

Not determined

Upper / lower Flammability Limits

Not determined

Flammability (Solid, Gas)

Not flammable

Evaporation Rate

< 1.0

Vapor Density	> 1.0	(Air=1)
Specific Gravity	1.03 – 1.05	(1=Water)
Water Solubility	Completely soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Dynamic Viscosity	Not determined	
VOC Content (%)	Not determined	

10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions.

Chemical Stability Stable under recommended storage conditions.

Possibility of Hazardous Reactions None under normal processing.

Conditions to Avoid Incompatible Materials.

Incompatible Materials Strong acids, alkalis, certain oxidizing agents.

Hazardous Decomposition Products Thermal decomposition and combustion are not expected to occur except under extreme conditions.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes serious eye irritation.

Skin Contact Prolonged contact may cause redness and irritation.

Inhalation May cause irritation to the mucous membranes and upper respiratory tract.

Ingestion May cause gastrointestinal irritation or diarrhea.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Triethanolamine CAS#102-71-6	= 4190 mg/kg (Rat)	> 2000 mg/kg (Rabbit) > 16 mL/kg (Rat)	-
Propane-1,2-diol CAS# 57-55-6	20000 mg/kg (Rat)	20800 mg/kg (Rabbit)	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Triethanolamine 102-71-6		Group 3		

Legend

IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"

Numerical measures of toxicity Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life with long lasting effects

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Triethanolamine 102-71-6	216: 72 h Desmodesmus subspicatus mg/L EC50 169: 96 h Desmodesmus subspicatus mg/L EC50	10600 - 13000: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Pimephales promelas mg/L LC50 static 450 - 1000: 96 h Lepomis macrochirus mg/L LC50 static		1386: 24 h Daphnia magna mg/L EC50
Propane-1,2-diol 57-55-6 5		LC50= 51400 mg/L Pimephales promelas 96 h LC50= 51600 mg/L Oncorhynchus mykiss 96 h	EC50 = 710 mg/L 30 min	EC50 > 10000 mg/L 48 h

Persistence/Degradability Biodegradation: Expected to be slowly biodegradable. Natural carbon dioxide will slowly neutralize this material.

Bioaccumulation Not determined.

Mobility

Chemical Name	Partition Coefficient
Triethanolamine 102-71-6	-2.53

Other Adverse Effects Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not regulated

IATA Not regulated

IMDG / Marine Pollutant Not regulated.
This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Propane-1,2-diol	Present		X	Present	X	X	X	Present	X	X
Triethanolamine	Present	X		Present		Present	X	Present	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 311/312 Hazard Categories

This material, as supplied, does not contain any substances subject to the requirements of SARA Sections 311/312 (40 CFR 370)

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Sec112 of the Clean Air Act

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Triethanolamine 102-71-6	X	X	X
Propane-1,2-diol 57-55-6 5	X	-	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	1	0	0	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	1	0	0	Not determined

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet