



## MATERIAL SAFETY DATA SHEET

### I. PRODUCTION IDENTIFICATION

Trade Name: CMAX / HGX	Synonyms: Metal Cutting Gas
Chemical Name: Liquefied Hydro Carbon	Chemical Family: Light Hydrocarbon
Formula: C3H8 / C4H10 & C10 OR Hydro Carbon	Mol. Weight: 44 to 58

### II. HAZARDOUS INGREDIENTS

Material	Cas No.	OSHA-PEL(TWA)
Petroleum Distillates	8052-41-3	100PPM

### III. PHYSICAL DATA

Boiling Point: -2°C to -42°C	Freezing Point = <-135°C
Specific Gravity (H2O=1) 0.507 to 0.585	Vapor Pressure in PSIG at 21°C 17 to 132
Vapor Density (Air = 1) 1.52 to 2.01	Solubility in Water % by Wt. 0.01
Appearance and odor	Colorless, Odorless, Liquefied Gas

### IV. HEALTH HAZARD DATA

Recommended exposure limit:	1000 PPM
Target Organs:	Respiratory System, Central Nervous System
<u>Effects of Over Exposure</u> Inhalation:	May cause light-headedness, dizziness, drowsiness, disorientation, and excitation.
Skin Contact:	Liquefies Gas may cause freeze burns
Ingestion:	Not a likely route. May cause freeze burns to mucous membrane
Eye Contact:	Vapors may cause irritation. Liquefies Gas may cause freeze burns.
Effect Of Chronic Exposure:	Not known

### V. FIRST AID MEASURES

<u>Emergency and First Aid Procedures:</u>	
Inhalation:	Remove to fresh air. If breathing ceases, administer artificial respiration. Seek medical attention.
Skin contact:	Flush skin with water. In case of irritation or freeze burns, get medical attention.
Ingestion	Get immediate medical attention.
Eye Contact:	Immediately flush with large amount of water. For freeze burns, seek immediate medical attention.



## VI. HANDLING AND STORAGE

HANDLING AND STORAGE PROCEDURE	
<b>Storage:</b>	<ol style="list-style-type: none"><li>1. Cylinder should be stored upright and firmly secured to prevent falling or being knocked over.</li><li>2. Post "No Smoking OR Open Flames" sign in the storage area.</li><li>3. There should be nor source of ignition.</li><li>4. All electrical equipment's should be explosion proof in the storage area.</li></ol>
<b>Handling:</b>	Protect cylinders from physical damage; do not drag, slide, roll, slide or drop. Use a suitable hand truck for cylinder movement.

## VII. FIRE AND EXPLOSION HAZARD DATA

<b>Flash point:</b> <-73°C	<b>Auto ignition temperature</b> > 460°C	
<b>Flammable limits in Air % by Volume</b>	<b>Hazard Class</b>	3
Lower: 1.55	Upper: 9.60	<b>ID No.</b> UN 1268
<b>HS Code:</b> 2710		
<b>Extinguishing Media:</b>	Dry chemical, Foam OR Carbon Dioxide	

## VIII. FIRE FIGHTING PROCEDURE

<b>SPECIAL FIR FIGHTING PROCEDURES:</b>
<ul style="list-style-type: none"><li>➤ Evacuate area of all unnecessary personnel.</li><li>➤ Do not attempt to extinguish the fire until source is shut off.</li><li>➤ Cut off fuel if possible or allow fire to burn out under controlled conditions.</li><li>➤ Extinguish small fire with dry chemical extinguishers.</li><li>➤ Keep the container cooled with water spray till fire is put off, to avoid build-up of pressure.</li></ul>

<b>Fire and Explosion Hazards:</b>
<ul style="list-style-type: none"><li>➤ Highly flammable vapors being heavier than air, may accumulate in low areas and/or spread along ground away from handling site.</li></ul>

## IX. SPILL OR LEAK PROCEDURES

<b>Steps to be taken if material is released or spilled:</b>	Shut-off source. Evacuate area of all unnecessary personnel. Wear protective equipment. Protect from ignition. Ventilate area.
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## X. REACTIVITY DATA

<b>Stability:</b>	Stable
<b>Conditions to avoid:</b>	Not Established
<b>Incompatibility (Material to avoid)</b>	Strong oxidizers, Chlorine Dioxide



Hazardous Decomposition Products:	Carbon oxides formed when burned
Hazardous Polymerization	Will not occur
Condition to avoid	Not established

#### XI. TOXICAL INFORMATION

Other Studies Relevant To Material:	Non-toxic
Irritancy Of Material	None
Reproductive Effects	None
Synergistic Materials:	None
Sensation To Material:	None

#### XII. ECOLOGICAL INFORMATION

ECOTOXITY	No adverse ecological effects are expected. CMAX does not contain any class I or class II ozone depleting chemicals.
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#### XIII. PERSONNEL PROTECTION INFORMATION

Ventilation	Use adequate ventilation to maintain exposure below REL
Protective Clothing	If exposure to liquid is possible, clothing to prevent skin freezing
Eye Protection Goggles	If reasonable possibility of eye contact exists
Other Protective Equipment's	Remove clothing if becomes wet

#### XIV. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD	<ol style="list-style-type: none"><li>1. Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier.</li><li>2. Residual product within process system may be burned at a controlled rate, if a suitable burning unit (flair stack) is available on site. This shall be done in accordance with local rules and regulations.</li></ol>
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#### XV. TRANSPORT INFORMATION

DOT/IMO Shipping Name	CMAX Metal Cutting Gas
Hazard Class	3
Product RQ	None
Shipping Label (s)	Flammable Gas
PLA Card (When Required)	Flammable Gas
Special Shipping Information	Cylinders should be transported in secure upright position, in a well-ventilated truck
The transportation of compressed gas in automobiles or in closed-body vehicles can present serious safety hazards and should be discouraged.	