MATERIAL SAFETY DATA SHEET-MSDS

MRO 1002 – OFFLINE KLEANER

Section 1: Product & Company Identification

Product Name / Trade Name
MRO 1002 – OFFLINE KLEANER

Product Use
Electrical / electronic cleaner

Manufacturers / Suppliers Information
MRO INFRA LLP, VADODARA, INDIA

Pack Type / Size(s)
500 ml Aerosol

Emergency Telephone Number (91) 9586789992
Fax Number
Website www.mroinfra.com

Revision Date 18th October 2018
Revision Number1

Section 2: Composition / Information On Ingredients

Component	CAS Number	Percent By Weight
Trade secret mixture	NA	90-100
Carbon dioxide	124-38-9	1-5

Section 3: Hazards Identification

Emergency Overview

Warning: Flammable.Danger. Contents Under Pressure. May Cause Skin Irritation. Harmful Or Fatal If Swallowed.

Potential Health Effects

Eyes Irritation to eyes including burning and redness.

Skin Repeated or prolonged contact may produce defatting of the skin leading to irritation, dermatitis or dryness.

Ingestion May result in gastrointestinal irritation, vomiting, nausea, abdominal discomfort or diarrhea.

Inhalation Small quantities may cause mild irritation to the respiratory tract. Repeated and prolonged exposure may cause irritation to the respiratory tract, headaches, nausea, dizziness.

Section 4: First Aid Measures

Eyes Flush with large amounts of water for 15 minutes. Obtain medical attention if soreness or redness persists.

Skin Remove contaminated clothing. Clean contaminated area by washing thoroughly with soap and water. Obtain medical attention if irritation persists.

Ingestion Do not induce vomiting if a large amount is ingested. If vomiting occurs naturally, lean victim forward to minimize risk of asphyxiation. Never give anything by mouth to an unconscious person. Call a physician.

Inhalation Remove person to fresh air immediately. Give artificial respiration if necessary. If there is difficulty in breathing, obtain medical attention immediately.

Section 5: Fire Fighting Measures

Flash Point (°C) TCC Closed Cup: <-17 bulk liquid

Extinguishing Media Carbon dioxide, dry chemical powder, foam, water spray or fog

Products of Combustion Carbon monoxide and carbon dioxide

Explosion Hazards Up on exposure to high heat from fire, aerosol containers may explode.

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Protective Measures For Fire Fighters	Firefighters must wear protective gear for body, eyes and wear self contained breathing apparatus for protection from suffocation arising due to lack of oxygen and to protect from possible hazardous decomposition products. Use water to cool fire exposed containers to prevent pressure build up and from exploding.

Section 6: Accidental Release Measures

Containment Procedures -Spill / Leak Clean Up	Try to contain and recover spilled product. Area should be ventilated with fresh air.Absorbent should be used to pick up by using earth, sand or other inert material. Transfer into suitable waste containers for disposal. In case of confined areas with limited air ventilation / circulation, use proper protective wear during cleanup.
Environmental Precautions	Try to prevent the material from entering drains or water body. Do not flush into drains or water bodies.
Personal Precautions	Refer to Section 8

Section 7: Handling & Storage

Handling	Avoid contact with skin and eyes. Do not breathe vapors or mists. Use with well ventilation. Wear protective equipment during handling. Wash thoroughly after handling. Do not spray into or around energized surfaces or sources of ignition. Read instructions on label.
Storage	Store in a cool, dry area. Store away from strong oxidizing agents or combustible material. Aerosol cans must be stored below 50°C to prevent from exploding.

Section 8: Exposure Controls / Personal Protection

Engineering Control Measures	Adequate to prevent accumulation of vapors. Use mechanical means if necessary to maintain levels below the exposure limits.
Eyes & Face Protection	Avoid eye contact. Wear chemical safety glasses / eye wear / goggles.
Hand Protection	Under normal circumstance, not required. Use as needed to prevent prolonged or repeated contact. Protective gloves made from nitrile, neoprene or n-butyl rubber are suitable.
Respiratory Protection	Use respirators or self-contained breathing apparatus in confined areas and for emergencies. If good ventilation is maintained, none are required.
Skin Protection	Use protective body gear in the event of prolonged or repeated exposure. Wash hands with soap and water after use and before breaks, lunch and at the end of work periods.

Section 9: Physical & Chemical Properties

Appearance	Liquid	**Odor**	Petroleum
Color	Clear	**Initial Boiling Point (°C)**	+56
Specific Gravity (g/cm³)	0.65-0.75	**Freezing Point**	ND
Flash Point , TCC (°C)	<-17 bulk liquid	**Vapor Density(air = 1)**	~3
Vapor Pressure	ND	**Decomposition Temperature**	ND
Flammability Limits - Lower %	1.2	**Evaporation Rate**	<1
- Upper %	7	**(ethyl ether = 1)**	
Viscosity (at 25°C), cSt	ND	**Auto Ignition Temperature (°C)**	+300
Solubility In Water %	Negligible	**pH**	ND
TCC = Tag Closed Cup		ND = Not determined	

Section 10: Chemical Stability & Reactivity

Stability	Stable under normal conditions
Conditions To Avoid	Keep away from heat and sources of ignition
Chemical Incompatibility	Strong oxidizing agents, alkalis and acids
Hazardous Decomposition	Carbon monoxide and carbon dioxide; metal oxides
Hazardous Polymerization	No

Section 11: Toxicological Information

Acute toxicity of this product has not been conducted

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Section 12: Ecological Information

Ecological studies have not been conducted for this product.

Mobility	Product is semi volatile / gaseous state and may partly be absorbed into soil. It will float partially if released into water
Persistence / Degradability	Slightly / partially biodegradable
Bioaccumulation	Not expected to bioaccumulate

Section 13: Disposal Considerations

Product Disposal	This material if discarded may be hazardous waste. Empty aerosol cans thoroughly before discarding as waste. All disposal activities must meet governing, state and local regulations. Do not dump into sewers, on the ground or into water.
Packaging Disposal	Dispose of in accordance with local regulations.

Section 14: Transportation Information

Road / Rail Transport

UN Number	1950	**Class**	2.1
Packing Group	NA	**Classification Code**	5F
Name & Description	Aerosols, Flammable	**Hazard ID Number**	NA
Labeling	2.1		

Sea Transport (IMDG)

UN Number	1950	**Class**	2.1
Shipping Name	Aerosols	**Subsidiary Risk**	NA
Labeling	NA	**Packing Group**	NA
Marine Pollutant	No	**EmS**	F-D, S-U

Air Transport (IATA)

UN Number	1950	**Class**	2.1
Shipping Name	Aerosols, Flammable	**Subclass**	NA
Packing Group	NA	**Packing Instructions**	203, Y203(Ltd.Qty.)
Labeling	Flammable Gas		

Section 15: Regulatory Information

Does not contain any ingredients or any listed substance as per Standard For Uniform Scheduling Of drugs & Poisons

Section 16: Other Information

None

To the best of our knowledge, the information contained herein is accurate. This MSDS, therefore, forms a component only of a risk assessment carried out by, or on behalf of, the user. It is not intended to constitute performance information concerning the product. No express warranty or implied warranty of merchant ability or fitness for a particular purpose is made with respect to the product or the information contained herein. However, they are supplied without warranty or guarantee of any kind either expressed or implied. The user is responsible for selecting and determining the suitability of products for purchaser's particular needs and we disclaim any responsibility for improper applications or misuse of our products in any manner whatsoever.

Product Use For Industrial Use Only

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