CHEMICAL PRODUCT SAFETY DATA SHEET

Prepared in accordance with GB/T 16483 and GB/T 17519.

1. Chemical product and company identification

Product name **3-36 Multi-Purpose Lubricant & Corrosion Inhibitor (aerosol)**

Product code PR03005

Company name CRC Industries Trading (Shanghai) Co., Ltd.

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Recommended use and Limitations on use

Recommended use Multi-purpose lubricant

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2. Hazards identification

Emergency overview

Aerosol. CONTENTS UNDER PRESSURE.
Pressurized container may explode when exposed to heat or flame. May be fatal if swallowed and enters airways. May be harmful in contact with skin. May be harmful if swallowed. May cause an allergic skin reaction. Dangerous for the environment if discharged into watercourses.

GHS-classification

Physical hazards	Aerosols	Category 1
Health hazards	Acute toxicity, oral	Category 5
	Acute toxicity, dermal	Category 5 (2.5 % of the mixture consists of component(s) of unknown toxicity.)
	Sensitization, skin	Category 1
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
Other hazards which do not result in classification	Not classified.	

Label elements

Pictograms

GHS-labeling

Signal word Danger

Hazard statement Extremely flammable aerosol. Pressurized container: May burst if heated. May be harmful if swallowed. May be fatal if swallowed and enters airways. May be harmful in contact with skin. May cause an allergic skin reaction. Harmful to aquatic life.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing gas, mist or vapor. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Avoid release to the environment.

Response	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Call a POISON CENTER/doctor if you feel unwell.
Storage	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Physical and chemical hazards	Extremely flammable aerosol. The product is stable and non-reactive under normal conditions of use, storage and transport.
Health hazards	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. May be harmful in contact with skin. May be harmful if swallowed. Prolonged inhalation may be harmful. May cause an allergic skin reaction. Direct contact with eyes may cause temporary irritation.
Environmental hazards	Harmful to aquatic life.

Supplemental information

2.5% of the mixture consists of component(s) of unknown acute dermal toxicity.

3. Composition/information on ingredients

Substance/mixture Mixture

Chemical name	CAS Number	Concentration (%)
Distillates (petroleum), hydrotreated light	64742-47-8	60 - 70
Paraffin oils (petroleum), catalytic dewaxed heavy	64742-70-7	10 - 20
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8	5 - 10
dipropylene glycol monomethyl ether acetate	88917-22-0	3 - 5
n-Butyl stearate	123-95-5	3 - 5
carbon dioxide	124-38-9	1 - 3
Petrolatum	8009-03-8	1 - 3
sorbitan monooleate	1338-43-8	1 - 3
Fatty Acids, C18-unsatd., Dimers	61788-89-4	< 1
d-Limonene	5989-27-5	< 0.2
Terpinolene	586-62-9	< 0.2

4. First aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. 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. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms and health effects	Aspiration may cause pulmonary edema and pneumonitis. May cause an allergic skin reaction. Dermatitis. Rash.
Expected acute symptoms and delayed symptoms	Aspiration may cause pulmonary edema and pneumonitis. May cause an allergic skin reaction. Dermatitis. Rash.
Personal protection for first-aid responders	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. Wash contaminated clothing before reuse.
Notes to physician	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media	Water fog. Alcohol resistant foam. Dry chemicals. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Extinguishing media to avoid	None known.
Specific hazards	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.

Special fire fighting procedures	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. Containers should be cooled with water to prevent vapor pressure build up.
Protection of fire-fighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
General fire hazards	Extremely flammable aerosol. Pressurized container may rupture when exposed to heat or flame.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
Clean-up methods and materials and containment measures	Stop leak if you can do so without risk. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Prevention of secondary hazards	Not available.

7. Handling and storage

Handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Do not re-use empty containers. Do not taste or swallow. Avoid breathing mist or vapor. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. For product usage instructions, please see the product label.
Storage	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Exposure limits

China OELs. Occupational Exposure Limits for Hazardous Agents in the Workplace, Chemical Hazardous Agents (GBZ 2.1-2007)

Components	Type	Value
carbon dioxide (CAS 124-38-9)	PC-STEL	18000 mg/m3
	PC-TWA	9000 mg/m3

Biological limit values	No biological exposure limits noted for the ingredient(s).
Control parameters	Follow standard monitoring procedures.

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.
Personal protective equipment	
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
Hand protection	Wear protective gloves such as: Nitrile. Neoprene.
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. Keep away from food and drink. 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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Aerosol.
Color	Blue green.
Odor	Pleasant.
pH	Not available.
Melting point/freezing point	-56.2 °F (-49 °C) estimated
Boiling point, initial boiling point, and boiling range	380 °F (193.3 °C) estimated
Flash point	192 °F (88.9 °C) Tag Closed Cup
Flammability limit - lower (%)	0.6 % estimated
Flammability limit - upper (%)	5.5 % estimated
Explosive limit - lower (%)	0.6 % estimated
Explosive limit - upper (%)	5.5 % estimated
Vapor pressure	1431 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.84 estimated
Density	7.04 lbs/gal estimated
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	428 °F (220 °C) estimated
Decomposition temperature	Not available.
Evaporation rate	Slow.
Other data	
Percent volatile	88.6 % estimated

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	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Sulfur oxides. Hydrocarbons.

11. Toxicological information

Acute toxicity May be fatal if swallowed and enters airways. May be harmful in contact with skin. May cause an allergic skin reaction.

Product	Species	Test Results
3-36 Multi-Purpose Lubricant & Corrosion Inhibitor (aerosol)		
Acute		
Dermal		
LD50	Rabbit	2143 mg/kg estimated
Oral		
LD50	Rat	4855 mg/kg estimated

* Estimates for product may be based on additional component data not shown.

Routes of exposure Inhalation. Ingestion. Skin contact.

Symptoms Aspiration may cause pulmonary edema and pneumonitis. May cause an allergic skin reaction. Dermatitis. Rash.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

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

Respiratory sensitization Not a respiratory sensitizer.

Respiratory or skin sensitization

Skin sensitizer May cause an allergic skin reaction.

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

d-Limonene (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.
Paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	3 Not classifiable as to carcinogenicity to humans.

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

Specific target organ toxicity following single exposure Not classified.

Specific target organ toxicity following repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death.

Chronic effects Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicological data

Components		Species	Test Results
dipropylene glycol monomethyl ether acetate (CAS 88917-22-0)			
Aquatic			
Acute			
Crustacea	LC50	Water flea (Daphnia magna)	2701 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	151 mg/l, 96 hours
		Rainbow trout,donaldson trout (Oncorhynchus mykiss)	111 mg/l, 96 hours
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)			
Aquatic			
Acute			
Fish	LC50	Bluegill (Lepomis macrochirus)	2.2 mg/l, 96 hours

Components		Species	Test Results
d-Limonene (CAS 5989-27-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	69.6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.619 - 0.796 mg/l, 96 hours
sorbitan monooleate (CAS 1338-43-8)			
Aquatic			
Acute			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	> 1000 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity Harmful to aquatic life.

Persistence and degradability

Bioaccumulation

Bioaccumulative potential

Octanol/water partition coefficient log Kow

dipropylene glycol monomethyl ether acetate	0.61 OECD 107
d-Limonene	4.232
Fatty Acids, C18-unsatd., Dimers	1 - 2.5, logKow
Terpinolene	4.23

Mobility in soil This product is miscible in water.

Other hazardous effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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. Contents under pressure. Do not puncture, incinerate or crush. 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

CNDG

UN number UN1950
UN proper shipping name AEROSOLS
Transport hazard class(es)
Class 2
Subsidiary risk -
Packing group -
Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number UN1950
UN proper shipping name Aerosols, flammable, Limited Quantity
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Packing group Not applicable.
Environmental hazards No.
ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, LIMITED QUANTITY
Transport hazard class(es)	
Class	2
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

CNDG; IATA; IMDG

15. Regulatory information

Inventory of Existing Chemical Substances in China

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

*A "Yes" indicates that all components of this product comply 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).

Applicable regulations

This safety data sheet conforms to the following laws, regulations and standards:
Regulations on the Control over Safety of Dangerous Chemicals
Regulations on Labor Protection in Workplaces Where Toxic Products Are Used
Measures for the Safe Use of Chemicals in Workplaces
Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)
General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009)
Packing Symbol of Dangerous Goods(GB190-2009)
Packing - Pictorial Marking for Handling of Goods (GB/T191-2009)

General Rule For Classification and Hazard Communication of Chemicals (GB 13690-2009) and Catalog of Hazardous Chemicals

carbon dioxide (CAS 124-38-9)
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)
d-Limonene (CAS 5989-27-5)
Terpinolene (CAS 586-62-9)

Occupational exposure limits for hazardous agents in the workplace (GBZ 2.1-2007)

carbon dioxide (CAS 124-38-9)

National Catalogue of Hazardous Wastes

Paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)
Paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)
Petrolatum (CAS 8009-03-8)

Restricted Import/Export Toxic Chemical List (MEP and GCA Announcement No. 2008-66, Dec. 1, 2008, amended through MEP and Customs Notice No. 2013-85, December 30, 2013)

Not regulated.

Classification and code of dangerous goods (GB 6944-2012)

Regulated.

List of Dangerous Goods (GB 12268-2005)

Regulated.

The Principle of Classification of Transport Packaging Groups of Dangerous Goods (GB/T15098-2008)

Regulated.

General Specifications for Transport Packages of Dangerous Goods (GB 12463-2009)

Regulated.

Regulations on Road Transport of Dangerous Goods

Regulated.

Regulations on Rail Road Transport of Dangerous Goods

Regulated.

UN Recommendations on the Transport of Dangerous Goods (UN RTDG)

Regulated.

16. Other information

References	EPA: AQUIRE database NLM: Hazardous Substances Data Base US. IARC Monographs on Occupational Exposures to Chemical Agents
Further information	CRC # 510F
Disclaimer	CRC Industries Trading (Shanghai) Co., Ltd. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.
Revision Information	This document has undergone significant changes and should be reviewed in its entirety.