



CHEMICAL PRODUCT SAFETY DATA SHEET

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

Company name: CRC Industries Trading (Shanghai) Co., Ltd. Product name: Heavy Duty Degreaser

Issue date: 06-16-2016

Version #: 01

SDS No: -

1. Chemical product and company identification

Product name	Heavy Duty Degreaser
Product code	PR03095
Company name	CRC Industries Trading (Shanghai) Co., Ltd.
Address	Room 2408, No. 488 South Wuning Road Jingan District - 200042 Shanghai, PR China
Telephone	
General Information	+86 (0) 21 6236 6035
24-Hour Emergency	+86 532 83889090
Website	www.crcindustries.cn

Recommended use and Limitations on use

Recommended use	General purpose degreaser
Issue date	06-16-2016

2. Hazards identification

Emergency overview	Aerosol. CONTENTS UNDER PRESSURE. Pressurized container may explode when exposed to heat or flame. May be harmful in contact with skin. May be harmful if swallowed. May cause drowsiness and dizziness. May cause cancer. Causes eye irritation. Causes skin irritation. May cause an allergic skin reaction. Prolonged exposure may cause chronic effects. Dangerous for the environment if discharged into watercourses.
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GHS-classification

Physical hazards	Aerosols	Category 3
Health hazards	Acute toxicity, oral	Category 5
	Acute toxicity, dermal	Category 5
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2B
	Sensitization, skin	Category 1B
	Carcinogenicity	Category 1B
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2 (1 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.)
	Hazardous to the aquatic environment, long-term hazard	Category 2 (1 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.)
Other hazards which do not result in classification	Not classified.	

Label elements

Pictograms



GHS-labeling

Signal word	Danger
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Hazard statement	Pressurized container: May burst if heated. May be harmful if swallowed. May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation. May cause drowsiness or dizziness. May cause cancer. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not pierce or burn, even after use. Avoid breathing mist or vapor. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid release to the environment.
Response	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. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Physical and chemical hazards	The product is stable and non-reactive under normal conditions of use, storage and transport.
Health hazards	May be harmful in contact with skin. May be harmful if swallowed. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful. Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation.
Environmental hazards	Toxic to aquatic life with long lasting effects.
Supplemental information	1% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 1% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Substance/mixture	Mixture		
Chemical name	CAS Number	Concentration (%)	
tetrachloroethylene	127-18-4	80 - 90	
COzol® 210	Proprietary	5 - 10	
carbon dioxide	124-38-9	1 - 3	

4. First aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical advice/attention if you feel unwell. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
Most important symptoms and health effects	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Expected acute symptoms and delayed symptoms	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Personal protection for first-aid responders	IF exposed or concerned: Get medical advice/attention. 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 spray. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Extinguishing media to avoid	None known.

Specific hazards	Pressurized container may rupture when exposed to heat or flame. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride, hydrogen chloride and possibly phosgene.
Special fire fighting procedures	Move containers from fire area if you can do so without risk. In case of fire: Stop leak if safe to do so. Containers should be cooled with water to prevent vapor pressure build up.
Protection of fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
General fire hazards	Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate personal protective equipment. 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. Avoid release to the environment.
For emergency responders	Wear appropriate protective equipment and clothing during clean-up. Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions	Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground.
Clean-up methods and materials and containment measures	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Use water spray to reduce vapors or divert vapor cloud drift. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Prevention of secondary hazards	None known.

7. Handling and storage

Handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Do not taste or swallow. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. 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.
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Storage	Level 1 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. Store away from incompatible materials (see Section 10 of the SDS).
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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/m ³
	PC-TWA	9000 mg/m ³
tetrachloroethylene (CAS 127-18-4)	PC-TWA	200 mg/m ³
trans-1,2-dichloroethylene (CAS 156-60-5)	PC-TWA	800 mg/m ³

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
tetrachloroethylene (CAS 127-18-4)	0.5 mg/l	Tetrachloroethylene	Blood	*
	3 ppm	Tetrachloroethylene	End-exhaled air	*

* - For sampling details, please see the source document.

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. Provide eyewash station. Eye wash facilities and emergency shower should be available when handling this product.
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: Viton®. Polyvinyl alcohol (PVA).
Eye protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear suitable protective clothing.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Aerosol.
Color	Colorless.
Odor	Solvent.
pH	Not available.
Melting point/freezing point	-119.2 °F (-84 °C) estimated
Boiling point, initial boiling point, and boiling range	119.7 °F (48.7 °C) estimated
Flash point	None (Tag Closed Cup)
Flammability limit - lower (%)	6.7 % estimated
Flammability limit - upper (%)	18 % estimated
Explosive limit - lower (%)	6.7 % estimated
Explosive limit - upper (%)	18 % estimated
Vapor pressure	1443.6 hPa estimated
Vapor density	> 4 (air = 1)
Relative density	1.58 estimated
Density	13.19 lbs/gal estimated
Solubility(ies)	
Solubility (water)	Slight.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	860 °F (460 °C) estimated
Decomposition temperature	Not available.
Evaporation rate	Fast.
Other data	
Percent volatile	97.6 % 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. Contact with incompatible materials. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride, hydrogen chloride and possibly phosgene.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Hydrogen chloride. Hydrogen fluoride. Phosgene. Carbon oxides.

11. Toxicological information

Acute toxicity	May be harmful in contact with skin. May be harmful if swallowed. Narcotic effects. May cause an allergic skin reaction.		
Product	Species	Test Results	
Heavy Duty Degreaser			
Acute			
Dermal			
LD50	Rabbit	3465 mg/kg estimated	
Inhalation			
LC50	Rat	23 mg/l, 4 hours estimated	
Oral			
LD50	Rat	2518 mg/kg estimated	
* Estimates for product may be based on additional component data not shown.			
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.		
Symptoms	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.		
Skin corrosion/irritation	Causes skin irritation.		
Serious eye damage/eye irritation	Causes eye irritation.		
Respiratory sensitization	Not a respiratory sensitizer.		
Skin sensitization	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	May cause cancer.		
China OELs for hazardous agents in the workplace: Carcinogen Category			
	TETRACHLOROETHYLENE (CAS 127-18-4)	Probable human carcinogen	
IARC Monographs. Overall Evaluation of Carcinogenicity			
	tetrachloroethylene (CAS 127-18-4)	2A Probably carcinogenic to humans.	
Toxic to reproduction	This product is not expected to cause reproductive or developmental effects.		
Specific target organ toxicity following single exposure	May cause drowsiness and dizziness.		
Specific target organ toxicity following repeated exposure	Not classified.		
Aspiration hazard	Not an aspiration hazard.		
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.		

12. Ecological information

Ecotoxicological data			
Components	Species	Test Results	
tetrachloroethylene (CAS 127-18-4)			
Aquatic			
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	4.73 - 5.27 mg/l, 96 hours
* Estimates for product may be based on additional component data not shown.			
Ecotoxicity	Toxic to aquatic life with long lasting effects.		
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulation			
Bioaccumulative potential			
Octanol/water partition coefficient log Kow			
	tetrachloroethylene	2.88	
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.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.
Local disposal regulations	Dispose of contents/container in accordance with local/regional/national/international 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.

14. Transport information

CNDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.2
Subsidiary risk	6.1(PGIII)
Packing group	-
Read safety instructions, SDS and emergency procedures before handling.	

IATA

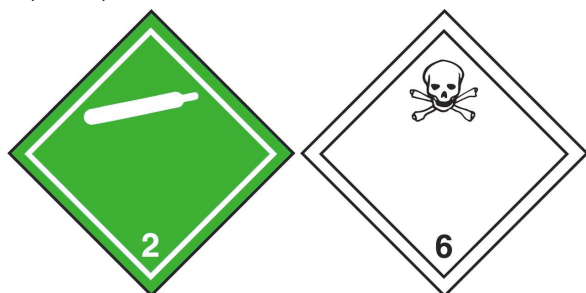
UN number	UN1950
UN proper shipping name	Aerosols, non-flammable, containing substances in Division 6.1, Packing Group III
Transport hazard class(es)	
Class	2.2
Subsidiary risk	6.1(PGIII)
Packing group	Not applicable.
Environmental hazards	No.
ERG Code	2P
Special precautions for user	Read safety instructions, 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
Transport hazard class(es)	
Class	2.2
Subsidiary risk	6.1(PGIII)
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)

tetrachloroethylene (CAS 127-18-4)

trans-1,2-dichloroethylene (CAS 156-60-5)

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

carbon dioxide (CAS 124-38-9)

tetrachloroethylene (CAS 127-18-4)

trans-1,2-dichloroethylene (CAS 156-60-5)

National Catalogue of Hazardous Waste, Appendix A

tetrachloroethylene (CAS 127-18-4)

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)

tetrachloroethylene (CAS 127-18-4)

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 # 894A

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.