



CHEMICAL PRODUCT SAFETY DATA SHEET

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

1. Chemical product and company identification

Product name	CO Contact Cleaner®
Product code	02015C, 02016C, PR02015C, PR02016C
Company name	CRC Industries, Inc.
Address	885 Louis Dr. Warminster, PA 18974 US
Telephone	
General Information	1-215-674-4300
Technical Assistance	1-800-521-3168
Customer Service	1-800-272-4620
24-Hour Emergency (CHEMTREC)	+86 532 83889090 (China) 1-703-527-3887 (International)
Website	www.crcindustries.com

Recommended use and Limitations on use

Recommended use	Not available.
Issue date	10-28-2014
Supersedes date	10-16-2014

2. Hazards identification

Emergency overview	Extremely flammable aerosol. Pressurized container may explode when exposed to heat or flame. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. May be harmful in contact with skin. Causes skin irritation. Possible reproductive hazard. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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GHS-classification

Physical hazards	Aerosols	Category 1
Health hazards	Acute toxicity, dermal	Category 5
	Skin corrosion/irritation	Category 3
	Reproductive toxicity (fertility)	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2 (nervous system, skin, eyes, respiratory system)
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
Other hazards which do not result in classification	Not classified.	

Label elements

Pictograms



GHS-labeling

Signal word	Danger
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Hazard statement	Extremely flammable aerosol. Pressurized container: May burst if heated. May be fatal if swallowed and enters airways. May be harmful in contact with skin. Causes mild skin irritation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child by ingestion. May cause damage to organs (Nervous system, Eyes, Skin, Respiratory system) through prolonged or repeated exposure. 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 spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe gas, mist or vapor. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.
Response	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If skin irritation occurs: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. If exposed or concerned: Get medical 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	Extremely flammable aerosol. Pressurized container: May burst if heated.
Health hazards	May be fatal if swallowed and enters airways. May cause damage to organs (nervous system, respiratory system, skin, eyes) through prolonged or repeated exposure. Suspected of damaging fertility. May cause drowsiness and dizziness. May be harmful if absorbed through skin. Causes skin irritation.
Environmental hazards	Toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients

Substance/mixture	Mixture	
Chemical name	CAS Number	Concentration (%)
Naphtha (petroleum), hydrotreated light	64742-49-0	80 - 90
Carbon dioxide	124-38-9	5 - 10
2,2,4-Trimethylpentane	540-84-1	3 - 5
Naphtha (petroleum), Light Alkylate	64741-66-8	3 - 5
n-Hexane	110-54-3	3 - 5
Methanol	67-56-1	< 1

4. First aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Provide oxygen or artificial respiration if needed. Get medical attention if symptoms persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Rinse mouth. Do not induce vomiting. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms and health effects	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Aspiration may cause pulmonary edema and pneumonitis. Causes mild skin irritation. Direct contact with eyes may cause temporary irritation.
Expected acute symptoms and delayed symptoms	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Aspiration may cause pulmonary edema and pneumonitis. Causes mild skin irritation. Direct contact with eyes may cause temporary irritation.
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.
Notes to physician	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media	Alcohol resistant foam. Water spray. Dry chemical powder. Carbon dioxide (CO2).
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Extinguishing media to avoid	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed. This product is a poor conductor of electricity and can become electrostatically charged.
Special fire fighting procedures	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
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.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers. 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. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. 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. Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

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. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Cover with plastic sheet to prevent spreading. 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. Prevent entry into waterways, sewer, basements or confined areas.

Prevention of secondary hazards Not available.

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. Static electricity and formation of sparks must be prevented. Do not re-use empty containers. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Wash contaminated clothing before reuse. Avoid release to the environment.

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

Components

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	18000 mg/m3

Components	Type	Value
Methanol (CAS 67-56-1)	TWA	9000 mg/m ³
	STEL	50 mg/m ³
n-Hexane (CAS 110-54-3)	TWA	25 mg/m ³
	STEL	180 mg/m ³
	TWA	100 mg/m ³

Biological limit values**China. Biological limit values for occupational exposure (WS/T 110 to 115, 239 to 243, and 264 to 267)**

Components	Value	Determinant	Specimen	Sampling Time
n-Hexane (CAS 110-54-3)	4 mg/l	2,5-Hexanedione	Urine	*
	35 mmol/l	2,5-Hexanedione	Urine	*

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

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedione, without hydrolysis	Urine	*

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

Exposure guidelines**China OELs: Skin designation**

METHANOL (CAS 67-56-1)

Can be absorbed through the skin.

N-HEXANE (CAS 110-54-3)

Can be absorbed through the skin.

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. Eye wash facilities and emergency shower must 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: Neoprene. Nitrile.

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 eat, drink or smoke. 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.

9. Physical and chemical properties**Appearance**

Physical state	Liquid.
Form	Aerosol.
Color	Clear. Colorless.

Odor Alcoholic.

pH Not available.

Melting point/freezing point Not available.

Boiling point, initial boiling point, and boiling range	123 °F (50.6 °C) estimated
Flash point	< 0 °F (< -17.8 °C) Tag Closed Cup
Flammability limit - lower (%)	0.9 % estimated
Flammability limit - upper (%)	36 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	3502.8 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.71
Density	5.92 lbs/gal estimated
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	489.2 °F (254 °C) estimated
Decomposition temperature	Not available.
Evaporation rate	Very fast.

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	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Aluminum.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Acute toxicity	May be fatal if swallowed and enters airways. Narcotic effects. May be harmful in contact with skin.
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Product	Species	Test Results
CO Contact Cleaner®		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2198.459 mg/kg estimated
<i>Inhalation</i>		
LC50	Rat	23170.3164 ppm, 4 hours estimated 23.1863 mg/l, 4 hours estimated
<i>Oral</i>		
LD50	Human	6228.3164 mg/kg estimated
	Rat	17005.6289 mg/kg estimated
LDL0	Human	37369.8984 mg/kg estimated
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.	
Symptoms	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Aspiration may cause pulmonary edema and pneumonitis. Causes mild skin irritation. Direct contact with eyes may cause temporary irritation.	
Skin corrosion/irritation	Causes mild skin irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory sensitization	Not available.	

Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not available.
Toxic to reproduction	Suspected of damaging fertility.
Specific target organ toxicity following single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity following repeated exposure	May cause damage to organs (Nervous system, Eyes, Skin, Respiratory system) through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful.
	Overexposure to n-hexane may cause progressive and potentially irreversible damage to the peripheral nervous system, particularly in the arms and legs.

12. Ecological information

Ecotoxicological data

Components		Species	Test Results
Methanol (CAS 67-56-1)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	18000 - 20000 mg/l, 96 hours
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	18000 - 20000 mg/l, 96 hours
n-Hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 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	No data available.

Bioaccumulative potential

Octanol/water partition coefficient log Kow

2,2,4-Trimethylpentane	5.18
Methanol	-0.77
n-Hexane	3.9

Mobility in soil	No data available for this product.
Other hazardous effects	None known.

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.
Recommended methods for final destination	
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, flammable, (each not exceeding 1 L capacity)
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
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.
Cargo aircraft only	Allowed.

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	F-D, S-U
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

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	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 Dangerous Chemical Products

2,2,4-Trimethylpentane (CAS 540-84-1)

Carbon dioxide (CAS 124-38-9)

Methanol (CAS 67-56-1)

n-Hexane (CAS 110-54-3)

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

Carbon dioxide (CAS 124-38-9)

Methanol (CAS 67-56-1)

n-Hexane (CAS 110-54-3)

Restricted Import/Export Toxic Chemical List (MEP and GCA Announcement No. 2008-66, Dec. 1, 2008, amended through MEP and Customs Notice No. 2011-91, December 28, 2011)

Not regulated.

Classification and code of dangerous goods (GB6944-2005)

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

Disclaimer

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