CRC.

SAFETY DATA SHEET

1. Identification

Product identifier Super Degreaser™ Cleaner/Degreaser

Other means of identification

Product code 03110

Recommended use General purpose degreaser

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.

Warminster, PA 18974 US

Telephone

General Information 215-674-4300 **Technical** 800-521-3168

Assistance

Customer Service 800-272-4620 **24-Hour Emergency** 800-424-9300 (US)

(CHEMTREC) 703-527-3887 (International)
Website www.crcindustries.com

2. Hazard(s) identification

Physical hazardsGases under pressureCompressed gas

Health hazardsSkin corrosion/irritationCategory 2Serious eye damage/eye irritationCategory 2CarcinogenicityCategory 1B

Reproductive toxicity Category 1B

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Category 2

Category 3

system) through prolonged or repeated exposure. Harmful to aquatic life. Harmful to aquatic life

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated

exposure

Environmental hazards Hazardous to the aquatic environment, acute Category 3

hazard

Hazardous to the aquatic environment,

long-term hazard

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement

Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May cause cancer. May damage fertility or the unborn child. May cause damage to organs (liver, kidneys, nervous

with long lasting effects.

Material name: Super Degreaser™ Cleaner/Degreaser 03110 Version #: 01 Issue date: 11-10-2014

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 49°C/120°F. Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe mist or

vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye

protection/face protection. Avoid release to the environment.

Response If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off

contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep 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 attention. If exposed or concerned: Get

medical attention.

Storage Store locked up. Protect from sunlight. Store in a well-ventilated place. Exposure to high

temperature may cause can to burst.

Disposal Dispose of contents/container in accordance with local/regional/national regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen bromide.

3. Composition/information on ingredients

Mixtures

Chemical name Common name and synonyms		CAS number	%	
1,1,1,2-Tetrafluoroethane	HFC-134a	811-97-2	40 - 50	
n-Propyl bromide		106-94-5	40 - 50	
Carbon dioxide		124-38-9	3 - 5	
t-Butanol		75-65-0	1 - 3	
Butylene oxide		106-88-7	< 1	

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

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. Rinse skin with water/shower. If skin irritation occurs: Get medical

advice/attention. 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. Call a POISON CENTER or doctor/physician.

Most important symptoms/effects, acute and

symptoms/effects, acute and

delayed

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause

chronic effects.

Indication of immediate medical attention and special

treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General informationIF 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.

5. Fire-fighting measures

Suitable extinguishing media

Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen bromide.

Special protective equipment and precautions for firefighters

Fire-fighting equipment/instructions
General fire hazards

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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.

Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Emergency personnel need self-contained breathing 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. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Prevent entry into waterways, sewer, basements or confined areas. For waste disposal, see section 13 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.

7. Handling and storage

Precautions for safe 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. 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 breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. 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. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value	
Carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m3	
		5000 ppm	
t-Butanol (CAS 75-65-0)	PEL	300 mg/m3	
		100 ppm	
US. ACGIH Threshold Limit Values			
Components	Туре	Value	
Carbon dioxide (CAS 124-38-9)	Type STEL	Value 30000 ppm	
Carbon dioxide (CAS			
Carbon dioxide (CAS	STEL	30000 ppm	

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US. NIOSH: Pocket Guide to Chemical Hazards			
Components	Туре	Value	
Carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3	

124-38-9)		
		30000 ppm
	TWA	9000 mg/m3
		5000 ppm
t-Butanol (CAS 75-65-0)	STEL	450 mg/m3
		150 ppm
	TWA	300 mg/m3
		100 ppm

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	
1,1,1,2-Tetrafluoroethane (CAS 811-97-2)	TWA	4240 mg/m3	
		1000 ppm	
Butylene oxide (CAS 106-88-7)	TWA	5.9 mg/m3	
·		2 nnm	

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US - California OELs: Skin designation

n-Propyl bromide (CAS 106-94-5)

Can be absorbed through the skin.

Appropriate engineering

controls

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.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Viton®. Silver Shield®

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Use a NIOSH-approved cartridge respirator with an organic vapor cartridge unless exposure is

below the TLV. Air monitoring is required to determine actual employee exposure levels. Use a

self-contained breathing apparatus in confined spaces and for emergencies.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

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 Colorless.
Odor Solvent.
Odor threshold Not available.
pH Not available.

Melting point/freezing point -266.8 °F (-166 °C) estimated Initial boiling point and boiling 158 °F (70 °C) estimated

range

Flash point None (Tag Closed Cup)

Evaporation rate Fast

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Flammability limit - upper

(%)

8 % estimated

3.8 % estimated

4968.8 hPa estimated Vapor pressure

Vapor density 4.3 (air = 1)1.29 estimated Relative density 0.003 g/ml Solubility (water) Partition coefficient Not available.

(n-octanol/water)

914 °F (490 °C) estimated Auto-ignition temperature

Decomposition temperature Not available. Not available. Viscosity (kinematic) 96.9 % Percent volatile

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Heat, flames and sparks. When exposed to extreme heat or hot surfaces, vapors may decompose Conditions to avoid

to harmful or fatal corrosive gases such as hydrogen bromide. Contact with incompatible materials.

Strong oxidizing agents. Strong acids. Strong bases. Incompatible materials

Hazardous decomposition

products

Hydrogen bromide. Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Ingestion Health injuries are not known or expected under normal use.

May cause damage to organs through prolonged or repeated exposure by inhalation. May cause Inhalation

drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory

7347.502 mg/kg estimated

system.

Skin contact Causes skin irritation.

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Narcotic effects. May cause respiratory irritation.

Product	Species	Test Results
Super Degreaser™ Cleaner/Degreas	ser	

Acute

Dermal

LD50 Rabbit 3997.2747 mg/kg estimated

Inhalation

LC50 Rat 14659.6855 mg/l, 4 Hours estimated

Oral

Rat

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye

LD50

irritation

Causes serious eye irritation.

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

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 May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Butylene oxide (CAS 106-88-7) 2B Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

n-Propyl bromide (CAS 106-94-5) Reasonably Anticipated to be a Human Carcinogen.

May damage fertility or the unborn child. Reproductive toxicity

Specific target organ toxicity -

single exposure

May cause respiratory irritation. May cause drowsiness and dizziness.

Specific target organ toxicity repeated exposure

May cause damage to organs through prolonged or repeated exposure: Liver. Kidneys. Nervous

system.

Aspiration hazard

None known.

Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. May cause Chronic effects

damage to organs through prolonged or repeated exposure.

12. Ecological information

Harmful to aquatic life with long lasting effects. **Ecotoxicity**

Product		Species	Test Results
Super Degreaser™ C	leaner/Degreaser		
Aquatic			
Fish	LC50	Fish	140.9024 mg/l, 96 hours estimated
Components		Species	Test Results
n-Propyl bromide (CA	S 106-94-5)		
Aquatic			
Fish	LC50	Fathead minnow (Pimephales p	romelas) 67.3 mg/l, 96 hours
t-Butanol (CAS 75-65	-0)		
Acute			
	EC10	Bacteria	2050 mg/l, 18 hours
	EC50	Bacteria	11263 mg/l
Aquatic			
Acute			
Algae	EC50	Green algae (Chlamydomonas	variabilis) > 976 mg/l
Crustacea	EC50	Water flea (Daphnia magna)	5504 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales p	romelas) > 961 mg/l, 96 hours

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

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available. Partition coefficient n-octanol / water (log Kow)

1.274 1,1,1,2-Tetrafluoroethane n-Propyl bromide 2.1 0.35 t-Butanol

Mobility in soil No data available.

Other adverse 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

Disposal of waste from residues / unused products

This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. 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 in accordance with all applicable regulations.

Hazardous waste code Not regulated.

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.

14. Transport information

DOT

UN1950 **UN** number

Aerosols, non-flammable, Limited Quantity **UN proper shipping name**

Transport hazard class(es)

2.2 Class Subsidiary risk Label(s) 2.2

Packing group Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Not available. **Special provisions**

306 Packaging exceptions Packaging non bulk None Packaging bulk None

IATA

UN1950 **UN** number

UN proper shipping name Aerosols, non-flammable, Limited Quantity

Transport hazard class(es)

Class 2.2 Subsidiary risk

Packing group Not applicable.

Environmental hazards No. 2L **ERG Code**

Other information

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Passenger and cargo

aircraft

Allowed.

Cargo aircraft only

Allowed.

IMDG

UN number UN1950

UN proper shipping name Transport hazard class(es)

AEROSOLS, LIMITED QUANTITY

2 Class Subsidiary risk

Not applicable. Packing group

Environmental hazards

Marine pollutant No. F-D, S-U

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Butylene oxide (CAS 106-88-7) t-Butanol (CAS 75-65-0)

CERCLA Hazardous Substance List (40 CFR 302.4)

Butylene oxide (CAS 106-88-7)

n-Propyl bromide (CAS 106-94-5)

t-Butanol (CAS 75-65-0)

CERCLA Hazardous Substances: Reportable quantity

 Butylene oxide (CAS 106-88-7)
 100 LBS

 n-Propyl bromide (CAS 106-94-5)
 100 LBS

 t-Butanol (CAS 75-65-0)
 100 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

Food and Drug

Not regulated.

Administration (FDA)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Immediate Hazard - Yes
Hazard categories Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - Yes
Reactivity Hazard - No

No

SARA 302 Extremely hazardous substance

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Carbon dioxide (CAS 124-38-9) n-Propyl bromide (CAS 106-94-5) Butylene oxide (CAS 106-88-7) t-Butanol (CAS 75-65-0)

US. Massachusetts RTK - Substance List

Carbon dioxide (CAS 124-38-9) n-Propyl bromide (CAS 106-94-5) t-Butanol (CAS 75-65-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Butylene oxide (CAS 106-88-7) t-Butanol (CAS 75-65-0) Carbon dioxide (CAS 124-38-9) n-Propyl bromide (CAS 106-94-5)

US. Rhode Island RTK

Butylene oxide (CAS 106-88-7) t-Butanol (CAS 75-65-0)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm

US - California Proposition 65 - CRT: Listed date/Developmental toxin

n-Propyl bromide (CAS 106-94-5)

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Isopropyl bromide (CAS 75-26-3)

n-Propyl bromide (CAS 106-94-5)

Listed: December 7, 2004

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Isopropyl bromide (CAS 75-26-3)

n-Propyl bromide (CAS 106-94-5)

Listed: May 31, 2005

Listed: December 7, 2004

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 49.9 % **51.100(s))**

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Consumer products (40 CFR 59, Subpt. C)

Not regulated

State

Consumer products

This product is regulated as a General Purpose Degreaser (aerosol). This product is not compliant to be sold for use in California and the following counties in Utah: Box Elder, Cache, Davis, Salt

Lake, Tooele, Utah and Weber. This product is compliant in all other states.

VOC content (CA) 49.9 % **VOC content (OTC)** 49.9 %

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)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
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).

16. Other information, including date of preparation or last revision

Issue date 11-10-2014
Prepared by Allison Cho

Version # 01

Further information CRC # 435-435A

HMIS® ratings Health: 2*

Flammability: 0 Physical hazard: 0 Personal protection: B

NFPA ratings Health: 2

Flammability: 0 Instability: 0

NFPA ratings



Disclaimer

CRC 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 contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries.