



SAFETY DATA SHEET

1. Identification

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|---|---|
| Product identifier | Super Degreaser™ |
| Other means of identification | |
| Product code | 03111 |
| Recommended use | General purpose degreaser |
| Recommended restrictions | None known. |
| Manufacturer/Importer/Supplier/Distributor information | |
| Company name | CRC Industries, Inc. |
| Address | 885 Louis Dr. Warminster, PA 18974 US |
| Telephone | |
| General Information | 215-674-4300 |
| Technical Assistance | 800-521-3168 |
| Customer Service | 800-272-4620 |
| 24-Hour Emergency (CHEMTREC) | 800-424-9300 (US) 703-527-3887 (International) |
| Website | www.crcindustries.com |

2. Hazard(s) identification

| | | |
|------------------------------|--|--|
| Physical hazards | Not classified. | |
| Health hazards | Skin corrosion/irritation | Category 2 |
| | Serious eye damage/eye irritation | Category 2 |
| | Carcinogenicity | Category 2 |
| | Reproductive toxicity | Category 1B |
| | Specific target organ toxicity, single exposure | Category 3 respiratory tract irritation |
| | Specific target organ toxicity, single exposure | Category 3 narcotic effects |
| | Specific target organ toxicity, repeated exposure | Category 2 (kidney, liver, nervous system) |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard | Category 3 |
| OSHA defined hazards | Not classified. | |
| Label elements | | |



| | |
|--------------------------------|---|
| Signal word | Danger |
| Hazard statement | Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. May damage fertility or the unborn child. May cause damage to organs (kidney, liver, nervous system) through prolonged or repeated exposure. Harmful to aquatic life. |
| Precautionary statement | |
| Prevention | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 the mist or vapor. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid release to the environment. |

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| Response | If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/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 advice/attention. If exposed or concerned: Get medical advice/attention. |
| Storage | Store in a well-ventilated place. Keep container tightly closed. Store locked up. |
| 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 | % |
|------------------|--------------------------|------------|----------|
| n-propyl bromide | 1-bromopropane | 106-94-5 | 90 - 100 |
| butylene oxide | | 106-88-7 | 1 - 3 |
| t-butanol | | 75-65-0 | 1 - 3 |

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

4. First-aid measures

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| 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. If ingestion of a large amount does occur, call a poison control center immediately. |
| Most important symptoms/effects, acute and delayed | May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Edema. Jaundice. 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 information | 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. |

5. Fire-fighting measures

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| Suitable extinguishing media | Alcohol resistant foam. 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 | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire-fighting equipment/instructions | Move containers from fire area if you can do so without risk. |
| General fire hazards | No unusual fire or explosion hazards noted. |

6. Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
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| Methods and materials for containment and cleaning up | Use water spray to reduce vapors or divert vapor cloud drift. Prevent product from entering drains. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 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. |

7. Handling and storage

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| Precautions for safe handling | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Provide adequate ventilation. 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 | Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). |

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

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

| Components | Type | Value |
|-------------------------|------|----------------------|
| t-butanol (CAS 75-65-0) | PEL | 300 mg/m3 100 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|---------------------------------|------|---------|
| n-propyl bromide (CAS 106-94-5) | TWA | 0.1 ppm |
| t-butanol (CAS 75-65-0) | TWA | 100 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|-------------------------|------|----------------------|
| 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 |
|-------------------------------|------|-----------|
| butylene oxide (CAS 106-88-7) | TWA | 5.9 mg/m3 |
| | | 2 ppm |

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. Provide eyewash station.

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®

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| Other | Wear appropriate chemical resistant clothing. |
| Respiratory protection | Use a NIOSH-approved cartridge respirator with an organic vapor cartridge unless exposure is below the TLV. Air monitoring is needed 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 | Observe any medical surveillance requirements. 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

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|---|-------------------------------|
| Physical state | Liquid. |
| Form | Liquid. |
| 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 range | 145.9 °F (63.3 °C) estimated |
| Flash point | None (Tag Closed Cup) |
| Evaporation rate | Fast |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | 3.8 % estimated |
| Flammability limit - upper (%) | 9.5 % estimated |
| Vapor pressure | 149.3 hPa estimated |
| Vapor density | 4.3 (air = 1) |
| Relative density | 1.32 |
| Solubility (water) | 0.003 g/ml |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 822 °F (438.9 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity (kinematic) | Not available. |
| Percent volatile | 100 % |

10. Stability and reactivity

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|---|---|
| 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. |
| Conditions to avoid | Contact with incompatible materials. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen bromide. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | Hydrogen bromide. Carbon oxides. |

11. Toxicological information

Information on likely routes of exposure

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| Inhalation | May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. |
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| Skin contact | Causes skin irritation. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Health injuries are not known or expected under normal use. |
| Symptoms related to the physical, chemical and toxicological characteristics | May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Edema. Jaundice. |

Information on toxicological effects

Acute toxicity

| Components | Species | Test Results |
|---------------------------------|---------|----------------------|
| butylene oxide (CAS 106-88-7) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | 1760 mg/kg |
| Oral | | |
| LD50 | Rat | 1180 mg/kg |
| n-propyl bromide (CAS 106-94-5) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Inhalation | | |
| LC50 | Rat | 14374 ppm, 4 hours |
| Oral | | |
| LD50 | Rat | 4260 mg/kg |
| t-butanol (CAS 75-65-0) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Inhalation | | |
| LC50 | Rat | > 14100 ppm, 4 hours |
| Oral | | |
| LD50 | Rat | 3500 mg/kg |

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

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| Skin corrosion/irritation | Causes skin irritation. |
| Serious eye damage/eye irritation | Causes serious eye irritation. |
| Respiratory sensitization | Not a respiratory sensitizer. |
| 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 | Suspected of causing cancer. |

IARC Monographs. Overall Evaluation of Carcinogenicity

| | |
|---------------------------------|-------------------------------------|
| butylene oxide (CAS 106-88-7) | 2B Possibly carcinogenic to humans. |
| n-propyl bromide (CAS 106-94-5) | 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. |
|---------------------------------|--|

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

Not regulated.

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|---|---|
| Reproductive toxicity | May damage fertility or the unborn child. |
| Specific target organ toxicity - single exposure | May cause respiratory irritation. May cause drowsiness and dizziness. |

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|---|---|
| Specific target organ toxicity - repeated exposure | May cause damage to organs (kidney, liver, nervous system) through prolonged or repeated exposure. |
| Aspiration hazard | Not an aspiration hazard. |
| Chronic effects | May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. |

12. Ecological information

Ecotoxicity Harmful to aquatic life.

| Components | Species | Test Results |
|---------------------------------|---------|--|
| n-propyl bromide (CAS 106-94-5) | | |
| Aquatic | | |
| Fish | LC50 | Fathead minnow (<i>Pimephales promelas</i>) 67.3 mg/l, 96 hours |
| t-butanol (CAS 75-65-0) | | |
| <i>Acute</i> | | |
| | EC10 | Bacteria 2050 mg/l, 18 hours |
| | EC50 | Bacteria 11263 mg/l |
| Aquatic | | |
| <i>Acute</i> | | |
| Algae | EC50 | Green algae (<i>Chlamydomonas variabilis</i>) > 976 mg/l |
| Crustacea | EC50 | Water flea (<i>Daphnia magna</i>) 5504 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (<i>Pimephales promelas</i>) > 961 mg/l, 96 hours |

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

Persistence and degradability

Hydrolysis

Half-life (Hydrolysis)

n-propyl bromide 26 days

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

n-propyl bromide 2.1
t-butanol 0.35

Bioconcentration factor (BCF)

n-propyl bromide 23

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. 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 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.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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)

Not regulated.

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

butylene oxide (CAS 106-88-7)
n-propyl bromide (CAS 106-94-5)
t-butanol (CAS 75-65-0)

CERCLA Hazardous Substance List (40 CFR 302.4)

butylene oxide (CAS 106-88-7) Listed.

CERCLA Hazardous Substances: Reportable quantity

butylene oxide (CAS 106-88-7) 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

butylene oxide (CAS 106-88-7)

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance No

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

butylene oxide (CAS 106-88-7)
n-propyl bromide (CAS 106-94-5)
t-butanol (CAS 75-65-0)

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

acetonitrile (CAS 75-05-8)
butylene oxide (CAS 106-88-7)
n-propyl bromide (CAS 106-94-5)
t-butanol (CAS 75-65-0)

US. Massachusetts RTK - Substance List

butylene oxide (CAS 106-88-7)
n-propyl bromide (CAS 106-94-5)
t-butanol (CAS 75-65-0)

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

acetonitrile (CAS 75-05-8)
butylene oxide (CAS 106-88-7)
n-propyl bromide (CAS 106-94-5)
t-butanol (CAS 75-65-0)

US. Rhode Island RTK

acetonitrile (CAS 75-05-8)
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) Listed: December 7, 2004

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

n-propyl bromide (CAS 106-94-5) Listed: December 7, 2004

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

n-propyl bromide (CAS 106-94-5) Listed: December 7, 2004

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 100 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is not for retail sale. It is for use in the manufacturing process only.

VOC content (CA) 100 %

VOC content (OTC) 100 %

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 |
| 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 | 01-04-2016 |
| Revision date | 01-23-2017 |
| Prepared by | Allison Cho |
| Version # | 02 |
| Further information | CRC # 435 |
| HMIS® ratings | Health: 2* Flammability: 0 Physical hazard: 0 Personal protection: B |
| NFPA ratings | Health: 2 Flammability: 0 Instability: 0 |

NFPA ratings



Disclaimer

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Revision Information

This document has undergone significant changes and should be reviewed in its entirety.