



SAFETY DATA SHEET

1. Identification

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|---|--|---|
| Product identifier | HydroForce® Citrus HD Degreaser | |
| Other means of identification | | |
| Product code | 74440 | |
| Recommended use | General purpose degreaser | |
| Recommended restrictions | None known. | |
| Manufacturer/Importer/Supplier/Distributor information | | |
| Manufactured or sold by: | | |
| Company name | CRC Canada Co. | |
| Address | 2-1246 Lorimar Dr. Mississauga, Ontario L5S 1R2 Canada | |
| Telephone | 905-670-2291 | |
| Website | www.crc-canada.ca | |
| E-mail | Support.CA@crcindustries.com | |
| Emergency phone number | 24-Hour Emergency (CHEMTREC) | 800-424-9300 (Canada) 703-527-3887 (International) |

2. Hazard(s) identification

| | | |
|------------------------------|--|---------------|
| Physical hazards | Gases under pressure | Liquefied gas |
| Health hazards | Skin corrosion/irritation | Category 2 |
| | Serious eye damage/eye irritation | Category 2A |
| | Sensitization, skin | Category 1 |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard | Category 2 |
| | Hazardous to the aquatic environment, long-term hazard | Category 2 |

Label elements



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|--------------------------------|---|
| Signal word | Warning |
| Hazard statement | Contains gas under pressure; may explode if heated. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life. Toxic to aquatic life with long lasting effects. |
| Precautionary statement | |
| Prevention | Avoid breathing mist or vapor. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves and eye/face protection. Wash thoroughly after handling. Avoid release to the environment. |
| Response | IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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. Collect spillage. |
| Storage | Protect from sunlight. Store in a well-ventilated place. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Other hazards | None known. |

Supplemental information

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

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|----------------------------------|--------------------------|------------|---------|
| water | | 7732-18-5 | 60 - 70 |
| 1,1-difluoroethane | HFC-152a | 75-37-6 | 10 - 20 |
| d-limonene | | 5989-27-5 | 3 - 5 |
| tallow alkyl amines, ethoxylated | | 61791-26-2 | < 1 |

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

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| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Call a physician if symptoms develop or persist. |
| Skin contact | Remove contaminated clothing immediately and wash skin with soap and water. Rinse skin with water/shower. Get medical attention if irritation develops and persists. 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. Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. |
| Most important symptoms/effects, acute and delayed | May cause an allergic skin reaction. Dermatitis. Rash. Irritation of eyes and mucous membranes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. |
| 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 | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. |

5. Fire-fighting measures

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| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). |
| Unsuitable extinguishing media | None known. |
| 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 fluoride. |
| 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 | 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. |
| General fire hazards | Contents under pressure. Pressurized container may rupture when exposed to heat or flame. |

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. 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. Avoid breathing mist or vapor. Avoid breathing gas. 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. |
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| 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. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. 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. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewer, basements or confined areas. |
| 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

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| Precautions for safe handling | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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. Avoid breathing mist or vapor. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. 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 | 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 cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS). |

8. Exposure controls/personal protection

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| Occupational exposure limits | No exposure limits noted for ingredient(s). |
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| 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 should 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: Rubber. Nitrile. |
| Other | Wear appropriate chemical resistant clothing. Wear suitable protective clothing. |
| 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. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | When using do not 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. Contaminated work clothing should not be allowed out of the workplace. |

9. Physical and chemical properties

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| Appearance | |
| Physical state | Liquid. |
| Form | Aerosol. |
| Color | Creamy white. |
| Odor | Citrus. |
| Odor threshold | Not available. |

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| pH | 10 |
| Melting point/freezing point | -139.9 °F (-95.5 °C) estimated |
| Initial boiling point and boiling range | 212 °F (100 °C) estimated |
| Flash point | None (Tag Closed Cup) |
| Evaporation rate | Slow. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | 0.7 % estimated |
| Flammability limit - upper (%) | 23.5 % estimated |
| Explosive limit - lower (%) | 0.7 % estimated |
| Explosive limit - upper (%) | 23.5 % estimated |
| Vapor pressure | 1191.4 hPa estimated |
| Vapor density | Not available. |
| Relative density | 0.96 |
| Solubility(ies) | |
| Solubility (water) | Soluble. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 302 °F (150 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Percent volatile | 94.6 % estimated |

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 | Heat, flames and sparks. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. Strong acids. |
| Hazardous decomposition products | Oxides of orange terpenes. Hydrogen fluoride. |

11. Toxicological information

Information on likely routes of exposure

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| Inhalation | Material is not likely to present an inhalation hazard at ambient conditions. However, if material is heated or high vapor concentrations are attained, central nervous system depression may occur, which is characterized by drowsiness, dizziness, confusion or loss of coordination. |
| Skin contact | Causes skin irritation. May cause an allergic skin reaction. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea. |

Symptoms related to the physical, chemical and toxicological characteristics Dermatitis. Diarrhea. Irritation of nose and throat. Rash. Irritation of eyes and mucous membranes. May cause redness and pain. May cause an allergic skin reaction. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity May cause an allergic skin reaction.

| Product | Species | Test Results |
|---------------------------------|---------|-----------------------------|
| HydroForce® Citrus HD Degreaser | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | 20242 mg/kg estimated |
| Inhalation | | |
| LC50 | Rat | 301 mg/l, 4 hours estimated |
| Oral | | |
| LD50 | Rat | 28767 mg/kg estimated |

* 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 | 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 | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |

IARC Monographs. Overall Evaluation of Carcinogenicity

d-limonene (CAS 5989-27-5) 3 Not classifiable as to carcinogenicity to humans.

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| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Based on available data, the classification criteria are not met. |
| Chronic effects | Prolonged exposure may cause chronic effects. |

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

| Components | Species | Test Results |
|---|---------|--|
| d-limonene (CAS 5989-27-5) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Daphnia pulex) 69.6 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 0.619 - 0.796 mg/l, 96 hours |
| tallow alkyl amines, ethoxylated (CAS 61791-26-2) | | |
| Aquatic | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 1 mg/l, 96 hours |
| <i>Acute</i> | | |
| Algae | IC50 | Algae 0.1 - 1 mg/l, 72 hours |
| Crustacea | EC50 | Water flea (Daphnia magna) 0.17 mg/l, 48 hours |
| Fish | LC50 | Rainbow trout, donaldson trout (Oncorhynchus mykiss) 0.13 mg/l, 96 hours |

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

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|--------------------------------------|---|
| Persistence and degradability | No data is available on the degradability of this product. |
| Bioaccumulative potential | No data available. |
| 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

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| Disposal of waste from residues / unused products | Contents under pressure. Do not puncture, incinerate or crush. Empty container can be recycled. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national regulations. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| 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

TDG

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| UN number | UN1950 |
| UN proper shipping name | AEROSOLS, non-flammable, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2.2 |
| Subsidiary risk | - |
| Packing group | Not applicable. |
| Environmental hazards | Not available. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | 80, 107 |

IATA

| | |
|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, non-flammable, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2.2 |
| Subsidiary risk | - |
| Packing group | Not applicable. |
| Environmental hazards | Yes |
| ERG Code | 2L |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Other information | |
| Passenger and cargo aircraft | Allowed with restrictions. |
| Cargo aircraft only | Allowed with restrictions. |

IMDG

| | |
|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | AEROSOLS, LIMITED QUANTITY |
| Transport hazard class(es) | |
| Class | 2 |
| Subsidiary risk | - |
| Packing group | Not applicable. |
| Environmental hazards | |
| Marine pollutant | No. |
| EmS | Not available. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

Canadian regulations

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

1,1-difluoroethane (CAS 75-37-6)

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

1,1-difluoroethane (CAS 75-37-6) Listed.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

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

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| Issue date | 08-23-2016 |
| Version # | 01 |
| Further information | CRC # 667C |
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