



SAFETY DATA SHEET

1. Identification

| | | |
|---|--|---|
| Product identifier | On & Off Hull and Bottom Cleaner | |
| Other means of identification | | |
| Product code | 76204 | |
| Recommended use | Cleaner for fiberglass hulls | |
| 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 | Corrosive to metals | Category 1 |
| Health hazards | Acute toxicity, oral | Category 4 |
| | Skin corrosion/irritation | Category 1B |
| | Serious eye damage/eye irritation | Category 1 |
| | Health hazards not otherwise classified | Category 1 |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard | Category 2 |
| | Hazardous to the aquatic environment, long-term hazard | Category 3 |

Label elements



| | |
|--------------------------------|---|
| Signal word | Danger |
| Hazard statement | May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes severe damage to the respiratory tract. Toxic to aquatic life. Harmful to aquatic life with long lasting effects. |
| Precautionary statement | |
| Prevention | Do not breathe mist or vapor. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid release to the environment. |
| Response | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material-damage. |
| Storage | Store in corrosive resistant container. Store locked up. |
| 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 chloride and possibly phosgene.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|-------------------------------|--------------------------|------------|---------|
| water | | 7732-18-5 | 60 - 70 |
| HYDROCHLORIC ACID | | 7647-01-0 | 20 - 30 |
| PHOSPHORIC ACID | | 7664-38-2 | 5 - 10 |
| alcohols, C12-15, ethoxylated | | 68131-39-5 | 1 - 3 |
| oxalic acid | | 144-62-7 | 1 - 3 |

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 | Move to fresh air. If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician if symptoms develop or persist. |
| Skin contact | Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. 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. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Most important symptoms/effects, acute and delayed | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Causes severe damage to the respiratory tract. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. 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. Show this safety data sheet to the doctor in attendance. |

5. Fire-fighting measures

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|--|---|
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). |
| 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 chloride and possibly phosgene. |
| 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. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |

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

This product is miscible in water. Should not be released into the environment. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers.

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. 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. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. Use care in handling/storage. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Store in corrosive resistant container. Store in a cool, dry place out of direct sunlight. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

| Components | Type | Value |
|-----------------------------------|---------|---------|
| hydrochloric acid (CAS 7647-01-0) | Ceiling | 2 ppm |
| oxalic acid (CAS 144-62-7) | STEL | 2 mg/m3 |
| | TWA | 1 mg/m3 |
| PHOSPHORIC ACID (CAS 7664-38-2) | STEL | 3 mg/m3 |
| | TWA | 1 mg/m3 |

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

| Components | Type | Value |
|-----------------------------------|---------|---------|
| hydrochloric acid (CAS 7647-01-0) | Ceiling | 3 mg/m3 |
| oxalic acid (CAS 144-62-7) | STEL | 2 ppm |
| | TWA | 2 mg/m3 |
| PHOSPHORIC ACID (CAS 7664-38-2) | STEL | 1 mg/m3 |
| | TWA | 3 mg/m3 |
| | TWA | 1 mg/m3 |

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

| Components | Type | Value |
|-----------------------------------|---------|---------|
| hydrochloric acid (CAS 7647-01-0) | Ceiling | 2 ppm |
| oxalic acid (CAS 144-62-7) | STEL | 2 mg/m3 |
| | TWA | 1 mg/m3 |
| PHOSPHORIC ACID (CAS 7664-38-2) | STEL | 3 mg/m3 |
| | TWA | 1 mg/m3 |

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

| Components | Type | Value |
|-----------------------------------|---------|---------|
| hydrochloric acid (CAS 7647-01-0) | Ceiling | 2 ppm |
| oxalic acid (CAS 144-62-7) | STEL | 2 mg/m3 |
| | TWA | 1 mg/m3 |
| PHOSPHORIC ACID (CAS 7664-38-2) | STEL | 3 mg/m3 |
| | TWA | 1 mg/m3 |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Components | Type | Value |
|-----------------------------------|---------|---------------------|
| hydrochloric acid (CAS 7647-01-0) | Ceiling | 2 ppm |
| oxalic acid (CAS 144-62-7) | STEL | 2 mg/m ³ |
| | TWA | 1 mg/m ³ |
| PHOSPHORIC ACID (CAS 7664-38-2) | STEL | 3 mg/m ³ |
| | TWA | 1 mg/m ³ |

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

| Components | Type | Value |
|-----------------------------------|---------|-----------------------|
| hydrochloric acid (CAS 7647-01-0) | Ceiling | 7.5 mg/m ³ |
| | | 5 ppm |
| oxalic acid (CAS 144-62-7) | STEL | 2 mg/m ³ |
| | TWA | 1 mg/m ³ |
| PHOSPHORIC ACID (CAS 7664-38-2) | STEL | 3 mg/m ³ |
| | TWA | 1 mg/m ³ |

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

| Components | Type | Value |
|-----------------------------------|---------|-------|
| hydrochloric acid (CAS 7647-01-0) | Ceiling | 2 ppm |

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) and a face shield.

Skin protection**Hand protection**

Wear protective gloves such as: Latex. Neoprene.

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 acid gas 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

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

Liquid.

Color

White.

Odor

Acid.

Odor threshold

Not available.

pH

< 1

Melting point/freezing point

< 0 °F (< -17.8 °C)

Initial boiling point and boiling range

185 °F (85 °C)

Flash point

None.

Evaporation rate

Slow.

| | |
|---|--------------------|
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Vapor pressure | 16.2 hPa estimated |
| Vapor density | Not available. |
| Relative density | 1.16 |
| Solubility(ies) | |
| Solubility (water) | Soluble. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Percent volatile | 69.5 % estimated |

10. Stability and reactivity

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|---|--|
| Reactivity | Reacts violently with strong alkaline substances. This product may react with reducing agents. May be corrosive to metals. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Do not mix with other chemicals. Contact with incompatible materials. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as Hydrogen chloride and Phosgene. |
| Incompatible materials | Bases. Strong oxidizing agents. Reducing agents. Metals. Amines. Bleach. |
| Hazardous decomposition products | Hydrogen chloride. Phosgene. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|---|
| Inhalation | Causes severe damage to the respiratory tract. |
| Skin contact | Causes severe skin burns. |
| Eye contact | Causes serious eye damage. |
| Ingestion | Causes digestive tract burns. Harmful if swallowed. |

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Causes severe damage to the respiratory tract.

Information on toxicological effects

Acute toxicity Harmful if swallowed.

| Product | Species | Test Results |
|----------------------------------|----------------|-------------------------------|
| On & Off Hull and Bottom Cleaner | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg calculated |
| Inhalation | | |
| LC50 | Rat | > 20 mg/l, 4 hours calculated |
| Oral | | |
| LD50 | Rat | > 930 mg/kg calculated |

| Components | Species | Test Results |
|--|---------|-------------------|
| alcohols, C12-15, ethoxylated (CAS 68131-39-5) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | < 5000 mg/kg |
| Oral | | |
| LD50 | Rat | 1600 - 2700 mg/kg |
| HYDROCHLORIC ACID (CAS 7647-01-0) | | |
| Acute | | |
| Dermal | | |
| Point estimate* | | 1100 mg/kg |
| Inhalation | | |
| LC50 | Rat | 1405 ppm, 4 Hours |
| Oral | | |
| Point estimate* | | 100 mg/kg |
| oxalic acid (CAS 144-62-7) | | |
| Acute | | |
| Dermal | | |
| Point estimate* | | 1100 mg/kg |
| Oral | | |
| Point estimate* | | 500 mg/kg |
| PHOSPHORIC ACID (CAS 7664-38-2) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | 2740 mg/kg |
| Oral | | |
| LD50 | Rat | 1530 mg/kg |

* Point estimate = Converted acute toxicity point estimate

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Canada - Alberta OELs: Irritant

| | |
|-----------------------------------|----------|
| HYDROCHLORIC ACID (CAS 7647-01-0) | Irritant |
| oxalic acid (CAS 144-62-7) | Irritant |
| PHOSPHORIC ACID (CAS 7664-38-2) | Irritant |

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

ACGIH Carcinogens

| | |
|-----------------------------------|--|
| HYDROCHLORIC ACID (CAS 7647-01-0) | A4 Not classifiable as a human carcinogen. |
|-----------------------------------|--|

Canada - Manitoba OELs: carcinogenicity

| | |
|-----------------------------------|---|
| HYDROCHLORIC ACID (CAS 7647-01-0) | Not classifiable as a human carcinogen. |
|-----------------------------------|---|

IARC Monographs. Overall Evaluation of Carcinogenicity

| | |
|-----------------------------------|---|
| HYDROCHLORIC ACID (CAS 7647-01-0) | 3 Not classifiable as to carcinogenicity to humans. |
|-----------------------------------|---|

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 | Not an aspiration hazard. |
| Chronic effects | Prolonged inhalation may be harmful. |

12. Ecological information

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

| Components | Species | Test Results |
|--|---------|---|
| alcohols, C12-15, ethoxylated (CAS 68131-39-5) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 | Water flea (<i>Daphnia magna</i>) 0.4 - 0.75 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (<i>Pimephales promelas</i>) 2.7 mg/l, 96 hours |
| HYDROCHLORIC ACID (CAS 7647-01-0) | | |
| Aquatic | | |
| Fish | LC50 | Western mosquitofish (<i>Gambusia affinis</i>) 282 mg/l, 96 hours |
| oxalic acid (CAS 144-62-7) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (<i>Daphnia magna</i>) 125 - 150 mg/l, 48 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. |
| 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 | 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 of contents/container in accordance with local/regional/national/international 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 | |
| UN number | UN3264 |
| UN proper shipping name | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrochloric acid, phosphoric acid) |
| Transport hazard class(es) | |
| Class | 8 |
| Subsidiary risk | - |
| Packing group | II |
| Environmental hazards | Marine pollutant only when containing 10% or more substances identified as marine pollutants or severe marine pollutant when containing 1% or more substances identified as severe marine pollutants |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | 16 |

IATA
Not permitted for shipment by air.

| | |
|-----------------------------------|--|
| IMDG | |
| UN number | UN3264 |
| UN proper shipping name | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrochloric acid, phosphoric acid) |
| Transport hazard class(es) | |
| Class | 8 |
| Subsidiary risk | - |
| Packing group | II |

Environmental hazards
Marine pollutant No.
EmS F-A, S-B
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

Not listed.

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

HYDROCHLORIC ACID (CAS 7647-01-0)

Precursor Control Regulations

HYDROCHLORIC ACID (CAS 7647-01-0) Class B

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

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) | 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) | No |
| 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

Issue date 08-31-2016
Version # 01

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