



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** QD® Electronic Cleaner

**Other means of identification**

**Product code** No. 05103 (Item# 1003719)

**Recommended use** Electronic cleaner

**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 Assistance** 800-521-3168

**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 hazards** Flammable aerosols Category 1  
Gases under pressure Compressed gas

**Health hazards** Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 2B  
Reproductive toxicity (fertility) Category 2  
Specific target organ toxicity, single exposure Category 3 narcotic effects  
Aspiration hazard Category 1

**Environmental hazards** Hazardous to the aquatic environment, acute hazard Category 2  
Hazardous to the aquatic environment, long-term hazard Category 2

**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger

**Hazard statement** Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility. Toxic to aquatic life with long lasting effects.

## Precautionary statement

### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. 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. Avoid breathing mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

### Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If 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. Collect spillage.

### Storage

Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. 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)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

## 3. Composition/information on ingredients

### Mixtures

| Chemical name                           | Common name and synonyms | CAS number | %       |
|-----------------------------------------|--------------------------|------------|---------|
| 2-methylpentane                         |                          | 107-83-5   | 30 - 40 |
| 1,1-difluoroethane                      | HFC-152a                 | 75-37-6    | 20 - 30 |
| naphtha (petroleum), hydrotreated light |                          | 64742-49-0 | 20 - 30 |
| n-hexane                                |                          | 110-54-3   | 5 - 10  |
| n-pentane                               |                          | 109-66-0   | 1 - 3   |
| 2,2-dimethylbutane                      |                          | 75-83-2    | < 1     |
| 2,3-dimethylbutane                      |                          | 79-29-8    | < 1     |
| 3-methylpentane                         |                          | 96-14-0    | < 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

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

### Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.

### 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

### Suitable extinguishing media

Water fog. Foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

|                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Specific hazards arising from the chemical</b>                    | Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed. |
| <b>Special protective equipment and precautions for firefighters</b> | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.                                                                                                                                                                                                                                                                                                                                                    |
| <b>Fire-fighting equipment/instructions</b>                          | 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.                                                                                                                                                                                                                                                                                                                               |
| <b>General fire hazards</b>                                          | Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.                                                                                                                                                                                                                                                                                                                                                                                              |

## 6. Accidental release measures

|                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Remove all possible sources of ignition in the surrounding area. 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. 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. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
| <b>Methods and materials for containment and cleaning up</b>               | Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Environmental precautions</b>                                           | 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. Use appropriate containment to avoid environmental contamination.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## 7. Handling and storage

|                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b>                                | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. 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. Protect containers from physical damage; do not drag, roll, slide, or drop. When moving containers, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport containers. Avoid breathing 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. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label. |
| <b>Conditions for safe storage, including any incompatibilities</b> | Level 3 Aerosol.<br><br>Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. 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

### Occupational exposure limits

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

| Components                                                     | Type | Value      |
|----------------------------------------------------------------|------|------------|
| naphtha (petroleum),<br>hydrotreated light (CAS<br>64742-49-0) | PEL  | 400 mg/m3  |
|                                                                |      | 100 ppm    |
| n-hexane (CAS 110-54-3)                                        | PEL  | 1800 mg/m3 |
|                                                                |      | 500 ppm    |
| n-pentane (CAS 109-66-0)                                       | PEL  | 2950 mg/m3 |
|                                                                |      | 1000 ppm   |

#### US. ACGIH Threshold Limit Values

| Components                          | Type | Value    |
|-------------------------------------|------|----------|
| 2,2-dimethylbutane (CAS<br>75-83-2) | STEL | 1000 ppm |
|                                     | TWA  | 500 ppm  |
| 2,3-dimethylbutane (CAS<br>79-29-8) | STEL | 1000 ppm |
|                                     | TWA  | 500 ppm  |
| 2-methylpentane (CAS<br>107-83-5)   | STEL | 1000 ppm |
|                                     | TWA  | 500 ppm  |
| 3-methylpentane (CAS<br>96-14-0)    | STEL | 1000 ppm |
|                                     | TWA  | 500 ppm  |
| n-hexane (CAS 110-54-3)             | TWA  | 50 ppm   |
| n-pentane (CAS 109-66-0)            | TWA  | 1000 ppm |

#### US. NIOSH: Pocket Guide to Chemical Hazards

| Components                                                     | Type    | Value      |
|----------------------------------------------------------------|---------|------------|
| 2,2-dimethylbutane (CAS<br>75-83-2)                            | Ceiling | 1800 mg/m3 |
|                                                                |         | 510 ppm    |
|                                                                | TWA     | 350 mg/m3  |
|                                                                |         | 100 ppm    |
| 2,3-dimethylbutane (CAS<br>79-29-8)                            | Ceiling | 1800 mg/m3 |
|                                                                |         | 510 ppm    |
|                                                                | TWA     | 350 mg/m3  |
|                                                                |         | 100 ppm    |
| 2-methylpentane (CAS<br>107-83-5)                              | Ceiling | 1800 mg/m3 |
|                                                                |         | 510 ppm    |
|                                                                | TWA     | 350 mg/m3  |
|                                                                |         | 100 ppm    |
| 3-methylpentane (CAS<br>96-14-0)                               | Ceiling | 1800 mg/m3 |
|                                                                |         | 510 ppm    |
|                                                                | TWA     | 350 mg/m3  |
|                                                                |         | 100 ppm    |
| naphtha (petroleum),<br>hydrotreated light (CAS<br>64742-49-0) | TWA     | 400 mg/m3  |
|                                                                |         | 100 ppm    |
| n-hexane (CAS 110-54-3)                                        | TWA     | 180 mg/m3  |
|                                                                |         | 50 ppm     |
| n-pentane (CAS 109-66-0)                                       | Ceiling | 1800 mg/m3 |
|                                                                |         | 610 ppm    |
|                                                                | TWA     | 350 mg/m3  |
|                                                                |         | 120 ppm    |

**US. Workplace Environmental Exposure Level (WEEL) Guides**

| Components                       | Type | Value      |
|----------------------------------|------|------------|
| 1,1-difluoroethane (CAS 75-37-6) | TWA  | 2700 mg/m3 |
|                                  |      | 1000 ppm   |

**Biological limit values****ACGIH Biological Exposure Indices**

| Components              | Value    | Determinant                               | Specimen | Sampling Time |
|-------------------------|----------|-------------------------------------------|----------|---------------|
| n-hexane (CAS 110-54-3) | 0.4 mg/l | 2,5-Hexanedio<br>n, without<br>hydrolysis | Urine    | *             |

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

**Exposure guidelines****US - California OELs: Skin designation**

n-hexane (CAS 110-54-3) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

n-hexane (CAS 110-54-3) 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 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: Nitrile. Polyvinyl chloride (PVC). Viton/butyl.

**Other** Wear appropriate chemical resistant 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.

**9. Physical and chemical properties****Appearance**

**Physical state** Liquid.

**Form** Aerosol.

**Color** Colorless.

**Odor** Alcoholic.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 123 °F (50.6 °C) estimated

**Flash point** < 0 °F (< -17.8 °C) Tag Closed Cup

**Evaporation rate** Very fast.

**Flammability (solid, gas)** Not available.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 1.1 % estimated

**Flammability limit - upper (%)** 19 % estimated

|                                         |                             |
|-----------------------------------------|-----------------------------|
| Vapor pressure                          | 175 mmHg (68 °F (20 °C))    |
| Vapor density                           | > 1 (air = 1)               |
| Relative density                        | 0.72 estimated              |
| Solubility (water)                      | Negligible.                 |
| Partition coefficient (n-octanol/water) | Not available.              |
| Auto-ignition temperature               | 489.2 °F (254 °C) estimated |
| Decomposition temperature               | Not available.              |
| Viscosity (kinematic)                   | Not available.              |
| Percent volatile                        | 99.8 % estimated            |

## 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.                                   |
| Conditions to avoid                | Heat, flames and sparks. Contact with incompatible materials.                                 |
| Incompatible materials             | Strong oxidizing agents.                                                                      |
| Hazardous decomposition products   | Carbon oxides.                                                                                |

## 11. Toxicological information

### Information on likely routes of exposure

|              |                                                                                                                        |
|--------------|------------------------------------------------------------------------------------------------------------------------|
| Inhalation   | May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.                   |
| Skin contact | Causes skin irritation.                                                                                                |
| Eye contact  | Causes eye irritation.                                                                                                 |
| Ingestion    | Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. |

|                                                                              |                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symptoms related to the physical, chemical and toxicological characteristics | Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Information on toxicological effects

|                |                                               |
|----------------|-----------------------------------------------|
| Acute toxicity | May be fatal if swallowed and enters airways. |
|----------------|-----------------------------------------------|

| Components                                               | Species | Test Results       |
|----------------------------------------------------------|---------|--------------------|
| naphtha (petroleum), hydrotreated light (CAS 64742-49-0) |         |                    |
| <b>Acute</b>                                             |         |                    |
| <b>Dermal</b>                                            |         |                    |
| LD50                                                     | Rabbit  | > 2000 mg/kg       |
| n-hexane (CAS 110-54-3)                                  |         |                    |
| <b>Acute</b>                                             |         |                    |
| <b>Dermal</b>                                            |         |                    |
| LD50                                                     | Rabbit  | > 1300 mg/kg       |
| <b>Oral</b>                                              |         |                    |
| LD50                                                     | Rat     | 15840 mg/kg        |
| n-pentane (CAS 109-66-0)                                 |         |                    |
| <b>Acute</b>                                             |         |                    |
| <b>Inhalation</b>                                        |         |                    |
| Vapor                                                    |         |                    |
| LC50                                                     | Rat     | 364 mg/m3, 4 Hours |

| Components                                                                   | Species                                                                                                                                                       | Test Results |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Oral<br>LD50                                                                 | Rat                                                                                                                                                           | > 2000 mg/kg |
| * Estimates for product may be based on additional component data not shown. |                                                                                                                                                               |              |
| Skin corrosion/irritation                                                    | Causes skin irritation.                                                                                                                                       |              |
| Serious eye damage/eye irritation                                            | Causes 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                                                              | Not classifiable as to carcinogenicity to humans.                                                                                                             |              |
| IARC Monographs. Overall Evaluation of Carcinogenicity                       |                                                                                                                                                               |              |
| Not listed.                                                                  |                                                                                                                                                               |              |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)               |                                                                                                                                                               |              |
| Not regulated.                                                               |                                                                                                                                                               |              |
| US. National Toxicology Program (NTP) Report on Carcinogens                  |                                                                                                                                                               |              |
| Not listed.                                                                  |                                                                                                                                                               |              |
| Reproductive toxicity                                                        | Suspected of damaging fertility.                                                                                                                              |              |
| Specific target organ toxicity - single exposure                             | May cause drowsiness and dizziness.                                                                                                                           |              |
| Specific target organ toxicity - repeated exposure                           | Not classified.                                                                                                                                               |              |
| Aspiration hazard                                                            | May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death. |              |
| Chronic effects                                                              | Prolonged inhalation may be harmful.                                                                                                                          |              |

## 12. Ecological information

| Ecotoxicity                                              |      | Toxic to aquatic life with long lasting effects. |                              |
|----------------------------------------------------------|------|--------------------------------------------------|------------------------------|
| Components                                               |      | Species                                          | Test Results                 |
| 2-methylpentane (CAS 107-83-5)                           |      |                                                  |                              |
| Aquatic                                                  |      |                                                  |                              |
| Acute                                                    |      |                                                  |                              |
| Crustacea                                                | EC50 | Daphnia                                          | 1 - 10 mg/l, 48 hours        |
| Fish                                                     | LC50 | Fish                                             | 1 - 10 mg/l, 96 hours        |
| naphtha (petroleum), hydrotreated light (CAS 64742-49-0) |      |                                                  |                              |
| Aquatic                                                  |      |                                                  |                              |
| Acute                                                    |      |                                                  |                              |
| Crustacea                                                | EC50 | Daphnia                                          | 1 - 10 mg/l, 48 hours        |
| Fish                                                     | LC50 | Fish                                             | 1 - 10 mg/l, 96 hours        |
| n-hexane (CAS 110-54-3)                                  |      |                                                  |                              |
| Aquatic                                                  |      |                                                  |                              |
| Fish                                                     | LC50 | Fathead minnow (Pimephales promelas)             | 2.101 - 2.981 mg/l, 96 hours |

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

### Persistence and degradability

#### Bioaccumulative potential

##### Partition coefficient n-octanol / water (log Kow)

|                    |      |
|--------------------|------|
| 1,1-difluoroethane | 0.75 |
| 2,2-dimethylbutane | 3.82 |
| 2,3-dimethylbutane | 3.42 |
| 2-methylpentane    | 3.74 |
| 3-methylpentane    | 3.6  |
| n-hexane           | 3.9  |



|                                                          |                                                                                                                                                                                         |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Partition coefficient n-octanol / water (log Kow)</b> |                                                                                                                                                                                         |
| n-pentane                                                | 3.39                                                                                                                                                                                    |
| <b>Bioconcentration factor (BCF)</b>                     |                                                                                                                                                                                         |
| naphtha (petroleum), hydrotreated light                  | 10 - 25000                                                                                                                                                                              |
| <b>Mobility in soil</b>                                  | No data available.                                                                                                                                                                      |
| <b>Other adverse effects</b>                             | 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

|                                                          |                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disposal of waste from residues / unused products</b> | If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose in accordance with all applicable regulations. |
| <b>Hazardous waste code</b>                              | D001: Waste Flammable material with a flash point <140 F                                                                                                                                                                                                                          |
| <b>Contaminated packaging</b>                            | 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

|                                     |                                                                         |
|-------------------------------------|-------------------------------------------------------------------------|
| <b>UN number</b>                    | UN1950                                                                  |
| <b>UN proper shipping name</b>      | Aerosols, flammable, Limited Quantity                                   |
| <b>Transport hazard class(es)</b>   |                                                                         |
| <b>Class</b>                        | 2.1                                                                     |
| <b>Subsidiary risk</b>              | -                                                                       |
| <b>Label(s)</b>                     | 2.1                                                                     |
| <b>Packing group</b>                | Not applicable.                                                         |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |
| <b>Special provisions</b>           | N82                                                                     |
| <b>Packaging exceptions</b>         | 306                                                                     |
| <b>Packaging non bulk</b>           | None                                                                    |
| <b>Packaging bulk</b>               | None                                                                    |

#### IATA

|                                     |                                                                         |
|-------------------------------------|-------------------------------------------------------------------------|
| <b>UN number</b>                    | UN1950                                                                  |
| <b>UN proper shipping name</b>      | Aerosols, flammable, Limited Quantity                                   |
| <b>Transport hazard class(es)</b>   |                                                                         |
| <b>Class</b>                        | 2.1                                                                     |
| <b>Subsidiary risk</b>              | -                                                                       |
| <b>Packing group</b>                | Not applicable.                                                         |
| <b>ERG Code</b>                     | 10L                                                                     |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |
| <b>Other information</b>            |                                                                         |
| <b>Passenger and cargo aircraft</b> | Allowed with restrictions.                                              |
| <b>Cargo aircraft only</b>          | Allowed with restrictions.                                              |

#### IMDG

|                                     |                                                                         |
|-------------------------------------|-------------------------------------------------------------------------|
| <b>UN number</b>                    | UN1950                                                                  |
| <b>UN proper shipping name</b>      | AEROSOLS, Limited Quantity                                              |
| <b>Transport hazard class(es)</b>   |                                                                         |
| <b>Class</b>                        | 2.1                                                                     |
| <b>Subsidiary risk</b>              | -                                                                       |
| <b>Packing group</b>                | Not applicable.                                                         |
| <b>Environmental hazards</b>        |                                                                         |
| <b>Marine pollutant</b>             | No.                                                                     |
| <b>EmS</b>                          | Not available.                                                          |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |

### 15. Regulatory information

|                               |                                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>US federal regulations</b> | 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.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

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

n-hexane (CAS 110-54-3)

**CERCLA Hazardous Substance List (40 CFR 302.4)**

n-hexane (CAS 110-54-3)

Listed.

n-pentane (CAS 109-66-0)

Listed.

**CERCLA Hazardous Substances: Reportable quantity**

n-hexane (CAS 110-54-3)

5000 LBS

n-pentane (CAS 109-66-0)

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**

n-hexane (CAS 110-54-3)

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

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

n-pentane (CAS 109-66-0)

**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****Hazard categories**

Immediate Hazard - Yes

Delayed Hazard - Yes

Fire Hazard - Yes

Pressure Hazard - Yes

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))**

naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

n-hexane (CAS 110-54-3)

n-pentane (CAS 109-66-0)

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

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

2,2-dimethylbutane (CAS 75-83-2)

2,3-dimethylbutane (CAS 79-29-8)

2-methylpentane (CAS 107-83-5)

naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

n-hexane (CAS 110-54-3)

n-pentane (CAS 109-66-0)

**US. Massachusetts RTK - Substance List**

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

2,2-dimethylbutane (CAS 75-83-2)

2,3-dimethylbutane (CAS 79-29-8)

2-methylpentane (CAS 107-83-5)

3-methylpentane (CAS 96-14-0)

naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

n-hexane (CAS 110-54-3)

n-pentane (CAS 109-66-0)

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

2,2-dimethylbutane (CAS 75-83-2)

2,3-dimethylbutane (CAS 79-29-8)

2-methylpentane (CAS 107-83-5)

3-methylpentane (CAS 96-14-0)  
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)  
n-hexane (CAS 110-54-3)  
n-pentane (CAS 109-66-0)

#### US. Rhode Island RTK

naphtha (petroleum), hydrotreated light (CAS 64742-49-0)  
n-hexane (CAS 110-54-3)  
n-pentane (CAS 109-66-0)

#### US. California Proposition 65

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

##### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

methyl isobutyl ketone (CAS 108-10-1) Listed: November 4, 2011

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

methanol (CAS 67-56-1) Listed: March 16, 2012

methyl isobutyl ketone (CAS 108-10-1) Listed: March 28, 2014

#### Volatile organic compounds (VOC) regulations

##### EPA

**VOC content (40 CFR 51.100(s))** 75 %

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

##### State

**Consumer products** This product is regulated as an Electronic Cleaner. This product is compliant for use in all 50 states.

**VOC content (CA)** 75 %

**VOC content (OTC)** 75 %

#### 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)               | No                     |
| Korea                       | Existing Chemicals List (ECL)                                          | Yes                    |
| New Zealand                 | New Zealand Inventory                                                  | Yes                    |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS)      | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                          | Yes                    |

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

|                            |                                                                               |
|----------------------------|-------------------------------------------------------------------------------|
| <b>Issue date</b>          | 08-08-2017                                                                    |
| <b>Revision date</b>       | 08-08-2017                                                                    |
| <b>Prepared by</b>         | Allison Yoon                                                                  |
| <b>Version #</b>           | 02                                                                            |
| <b>Further information</b> | CRC # 985/1002984                                                             |
| <b>HMIS® ratings</b>       | Health: 2*<br>Flammability: 4<br>Physical hazard: 0<br>Personal protection: B |

**NFPA ratings**

Health: 2  
Flammability: 4  
Instability: 0

**NFPA ratings****Disclaimer**

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**Revision Information**

Product and Company Identification: Product Codes  
Physical & Chemical Properties: Multiple Properties