

# MATERIAL SAFETY DATA SHEET

## GRD ELECTRI-CLEAN

### Section 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** GRD ELECTRI-CLEAN  
**Product Number:** U01-247000  
**Product Use:** Cleaning Solvent.  
**Manufactured For:** Global Industrial Products  
13170 NW 43rd Avenue  
Opa Locka, FL 33054

**D.O.T. Emergency Phone:** CHEM TEL (800) 255-3924  
INTERNATIONAL: +01-813-248-0584

**Date of Preparation:** November 23, 2010 **Revision #:** 2.0

### Section 2: HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**HMIS:** See Section 15

#### WARNING

TOXIC BY INHALATION. MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION.  
CONTENTS UNDER PRESSURE. CONTAINER MAY EXPLODE IF HEATED.

**Potential Health Effects:** See Section 11 for more information.

**Likely Routes of Exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Eye:** May cause eye irritation.  
**Skin:** May cause skin irritation.  
**Ingestion:** Not a normal route of exposure. Harmful: may cause lung damage if swallowed.  
**Inhalation:** Toxic by inhalation. May cause respiratory tract irritation. May cause asphyxiation. This product may be aspirated into the lungs and cause chemical pneumonitis.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation.

**Signs and Symptoms:** Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Handling can cause dry skin. Vapours may cause drowsiness and dizziness.

**Medical Conditions Aggravated By Exposure:** Asthma. Allergies.

**Target Organs:** Skin, eyes, gastrointestinal tract, respiratory system.

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

**Potential Environmental Effects:** May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Wt. %
Perchloroethylene	127-18-4	60 - 100
Acetone	67-64-1	1 - 5
Carbon dioxide	124-38-9	1 - 5

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### Section 4: FIRST AID MEASURES

- Eye Contact:** In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn.
- Skin Contact:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
- Note to Physicians:** Symptoms may not appear immediately.

### Section 5: FIRE FIGHTING MEASURES

- Flammability:** Not flammable by OSHA criteria.
- Means of Extinction:**
- Suitable Extinguishing Media:** Powder, foam, carbon dioxide.
  - Unsuitable Extinguishing Media:** Water.
- Products of Combustion:** Oxides of carbon, HCl, small amounts of phosgene and chlorine.
- Explosion Data:**
- Sensitivity to Mechanical Impact:** Not available.
  - Sensitivity to Static Discharge:** Not available.
- Protection of Firefighters:** Containers may explode when heated. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

### Section 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Ruptured cylinders may rocket.
- Environmental Precautions:** Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). This material is a water pollutant. Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.
- Methods for Containment:** Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for Clean-Up:** Vacuum or sweep material and place in a disposal container. Allow gas to dissipate harmlessly into the atmosphere.
- Other Information:** Not available.

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### Section 7: HANDLING AND STORAGE

**Handling:**

Keep away from sources of ignition. No smoking. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Use only in well-ventilated areas. Handle and open container with care. When using, do not eat or drink. Wash hands before eating, drinking, or smoking.

**Storage:**

Keep out of the reach of children. Keep container in a well-ventilated place. Do not store at temperatures above 49°C / 120°F.

### Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines**

Ingredient	Exposure Limits	
	OSHA-PEL	ACGIH-TLV
Perchloroethylene	25 ppm	25 ppm
Acetone	750 ppm	500 ppm
Carbon dioxide	5000 ppm	5000 ppm

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

**Personal Protective Equipment:**

**HMIS:** See Section 15

**Eye/Face Protection:** Wear eye/face protection.

**Hand Protection:** Wear suitable gloves.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear.
<b>Colour:</b>	Colourless.
<b>Odour:</b>	Solvent.
<b>Odour Threshold:</b>	Not available.
<b>Physical State:</b>	Gas/Pressurized Liquid.
<b>pH:</b>	Not applicable.
<b>Viscosity:</b>	Not available.
<b>Freezing Point:</b>	Not available.
<b>Boiling Point:</b>	Not available.
<b>Flash Point:</b>	Not available.
<b>Evaporation Rate:</b>	> 1 (Water = 1)
<b>Lower Flammability Limit:</b>	Not available.
<b>Upper Flammability Limit:</b>	Not available.

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<b>Vapor Pressure:</b>	Not available.
<b>Vapor Density:</b>	Not available.
<b>Specific Gravity:</b>	1.540 (Concentrate Only)
<b>Solubility in Water:</b>	Insoluble.
<b>Coefficient of Water/Oil Distribution:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.
<b>Percent Volatile, wt. %:</b>	Not available.
<b>VOC content, wt. %:</b>	0.0% (US federal/CARB/OTC/LADCO)
<b>VOC content, g/L:</b>	0 g/L

### Section 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Keep in a cool place.

**Conditions of Reactivity:** Heat. Incompatible materials.

**Incompatible Materials:** Oxidizers. Aluminum. Magnesium. Reactive metals.

**Hazardous Decomposition Products:** Oxides of carbon, HCl, small amounts of phosgene and chlorine.

**Possibility of Hazardous Reactions:** No dangerous reaction known under conditions of normal use.

### Section 11: TOXICOLOGY INFORMATION

#### EFFECTS OF ACUTE EXPOSURE

##### Component Analysis

Ingredient	LD <sub>50</sub> (oral)	LC <sub>50</sub>
Perchloroethylene	2629 mg/kg, rat	4000 ppm 4hr, rat
Acetone	5800 mg/kg, rat	Not available.
Carbon dioxide	Not available.	Not available.

**Eye:** May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Skin:** May cause skin irritation. Handling can cause dry skin.

**Ingestion:** Not a normal route of exposure. Harmful: may cause lung damage if swallowed.

**Inhalation:** Toxic by inhalation. May cause respiratory tract irritation. May cause asphyxiation. This product may be aspirated into the lungs and cause chemical pneumonitis. Vapours may cause drowsiness and dizziness.

#### EFFECTS OF CHRONIC EXPOSURE

**Target Organs:** Not available.

**Chronic Effects:** (Effects due to excessive exposure to the raw materials of this mixture) May cause liver abnormalities, kidney/spleen/lung/brain damage or cardiac abnormalities. Perchloroethylene has been shown to increase the rate of spontaneously occurring malignant tumors in certain laboratory rats and mice.

**Carcinogenicity:** Hazardous by OSHA criteria.

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### Ingredient

Perchloroethylene  
Acetone  
Carbon dioxide

### Chemical Listed as Carcinogen or Potential Carcinogen \*

G-A3, I-2A, N-2, CP65  
Not listed.  
Not listed.

\* See Section 15 for more information.

**Mutagenicity:** Not hazardous by OSHA criteria.

**Reproductive Effects:** Not hazardous by OSHA criteria.

### Developmental Effects:

**Teratogenicity:** Not hazardous by OSHA criteria.

**Embryotoxicity:** Not hazardous by OSHA criteria.

**Respiratory Sensitization:** Not hazardous by OSHA criteria.

**Skin Sensitization:** Not hazardous by OSHA criteria.

**Toxicologically Synergistic Materials:** Not available.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** May cause long-term adverse effects in the aquatic environment

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

## Section 13: DISPOSAL CONSIDERATIONS

### Disposal Instructions:

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

## Section 14: TRANSPORTATION INFORMATION

### DOT Classification

ORM-D; Limited Quantity

## Section 15: REGULATORY INFORMATION

### Federal Regulations

**US:** MSDS prepared pursuant to the Hazard Communication Standard (29 CFR 1910.1200).

### SARA Title III

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Perchloroethylene	Not listed.	Not listed.	100	313
Acetone	Not listed.	Not listed.	5,000	313
Carbon dioxide	Not listed.	Not listed.	Not listed.	Not listed.

### State Regulations

#### California Proposition 65:

This product contains a chemical known to the state of California to cause cancer.

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## GRD ELECTRI-CLEAN

### Global Inventories

#### Ingredient

Perchloroethylene  
Acetone  
Carbon dioxide

**USA  
TSCA**  
Yes.  
Yes.  
Yes.

### HMIS - Hazardous Materials Identification System

**Health - 2\*      Flammability - 0      Physical Hazard - 0      PPE – B**

### NFPA - National Fire Protection Association:

**Health - 2      Fire - 0      Reactivity - 0**

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

### SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

**OSHA (O)** Occupational Safety and Health Administration.

**ACGIH (G)** American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

**IARC (I)** International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)** National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

### Section 16: OTHER INFORMATION

#### Disclaimer:

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

**Prepared by:** Nexreg Compliance Inc.