1 - Identification

Product Name: WD-40 Specialist® Electrical Contact Cleaner

Product Use: Contact Cleaner. Electrical Cleaner for the removal of heavy soils such as grease and grime from electrical equipment.

Restrictions on Use: None identified

SDS Date Of Preparation: July 16, 2018

Manufacturer: WD-40 Company
Address: 9715 Businesspark Avenue
San Diego, California, USA 92131
Telephone: Emergency: 1-888-324-7596
Information: 1-888-324-7596
Chemical Spills: 1-800-424-9300 (Chemtrec)
1-703-527-3887 (International Calls)

2 – Hazards Identification

Hazcom 2012/GHS Classification:
Flammable Aerosol Category 1
Gas Under Pressure: Liquefied Gas
Aspiration Toxicity Category 1
Skin Irritation Category 2
Eye Irritant Category 2A
Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:

DANGER!
Extremely Flammable Aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Prevention
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 breathe vapors or mists.
Wash thoroughly with soap and water after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves and eye protection.

Response
IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
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 ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical 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 or physician if you feel unwell.
IF exposed or concerned: Get medical advice.

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

Disposal
Dispose of contents and container in accordance with local and national regulations.

3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Weight Percent</th>
<th>US Hazcom 2012/ GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heptane</td>
<td>64742-49-0 142-82-5</td>
<td>20-30%</td>
<td>Flammable Liquid Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aspiration Toxicity Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Irritant Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Specific Target Organ Toxicity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Single Exposure Category 3 (nervous system effects)</td>
</tr>
<tr>
<td>Isopropyl Alcohol (Isopropanol)</td>
<td>67-63-0</td>
<td>10-20%</td>
<td>Flammable Liquid Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Irritant Category 2A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Specific Target Organ Toxicity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Single Exposure Category 3 (nervous system effects)</td>
</tr>
<tr>
<td>1,1 Difluoroethane</td>
<td>75-37-6</td>
<td>40-60%</td>
<td>Flammable Gas Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gas Under Pressure, Liquefied Gas</td>
</tr>
</tbody>
</table>

Note: The exact percentages are a trade secret.

4 – First Aid Measures

Ingestion (Swallowed): Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for 15 minutes. Get medical attention if irritation persists.

Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.

Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

Signs and Symptoms of Exposure: Causes eye and skin irritation. Inhalation may cause drowsiness, dizziness and other nervous system effects. Harmful or fatal if swallowed. Aspiration of liquid into the lungs during swallowing or vomiting may cause lung damage.

Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is needed for ingestion.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.

Specific Hazards Arising from the Chemical: Extremely flammable aerosol. Highly flammable liquid and vapor. Contents under pressure. Keep away from ignition source and open fire. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors can cause a flash fire. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. A vapor and air mixture can create an explosion hazard in confined spaces. Combustion product include oxides of carbon and hydrogen fluoride.

Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.
6 – Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

**Methods and Materials for Containment/Cleanup:** Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

**Precautions for Safe Handling:** Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

**Conditions for Safe Storage:** Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 1 Aerosol. Store away from oxidizers.

8 – Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Occupational Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heptane</td>
<td>500 ppm TWA OSHA PEL</td>
</tr>
<tr>
<td></td>
<td>400 ppm TWA, 500 ppm STEL ACGIH TLV</td>
</tr>
<tr>
<td>Isopropyl Alcohol (Isopropanol)</td>
<td>200 ppm TWA, 400 ppm STEL ACGIH TLV</td>
</tr>
<tr>
<td></td>
<td>400 ppm TWA OSHA PEL</td>
</tr>
<tr>
<td>1,1 Difluoroethane</td>
<td>1000 ppm TWA AIHA WEEL</td>
</tr>
</tbody>
</table>

The Following Controls are Recommended for Normal Consumer Use of this Product

**Appropriate Engineering Controls:** Use in a well-ventilated area.

**Personal Protection:**

**Eye Protection:** Avoid eye contact. Always spray away from your face.

**Skin Protection:** Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

**Respiratory Protection:** None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

**Appropriate Engineering Controls:** Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

**Personal Protection:**

**Eye Protection:** Safety goggles recommended where eye contact is possible.

**Skin Protection:** Wear chemical resistant gloves.

**Respiratory Protection:** None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

**Work/Hygiene Practices:** Wash with soap and water after handling.

9 – Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
<td></td>
</tr>
<tr>
<td>Flammable Limits:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEL: 1.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UEL: 16.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Hydrocarbon/alcohol odor</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>37.5 mmHg @ 20°C (heptane)</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>Not established</td>
<td></td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>Greater than 2 (air=1)</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Relative Density:</td>
<td>Not established</td>
<td></td>
</tr>
</tbody>
</table>
Melting/Freezing Point: Not established
Solubilities: Partially soluble in water
Boiling Point/Range: 180-210°F (82.2-99°C)
Partition Coefficient; n-octanol/water: Not established
Flash Point: 16°F (-9°C) estimated
Autoignition Temperature: Not established
Evaporation Rate: Not established
Decomposition Temperature: Not established
Flammability (solid, gas): Flammable Aerosol
Viscosity: Not established
VOC: 45%
Pour Point: Not established

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions
Chemical Stability: Stable
Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.
Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.
Incompatible Materials: Strong oxidizing and reducing agents.
Hazardous Decomposition Products: Thermal decomposition will generate carbon monoxide, carbon dioxide, hydrogen fluoride.

11 – Toxicological Information

Symptoms of Overexposure:
Inhalation: Mist or vapor can irritate the throat and lungs. High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.
Skin Contact: Prolonged and/or repeated contact may produce drying and defatting with possible dermatitis.
Eye Contact: Contact may be moderately irritating to eyes. May cause redness and tearing.
Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. The liquid contents are an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis.
Chronic Effects: Prolonged or repeated skin contact may defeat the skin resulting in irritation and dermatitis.
Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.
Reproductive Toxicity: None of the components is considered a reproductive hazard.
Numerical Measures of Toxicity: The oral toxicity of this product is estimated to be greater than 2,000 mg/kg and the dermal toxicity greater than 2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.

12 – Ecological Information

Ecotoxicity: Heptane: 96 hr LC50 oncorhynchus mykiss >13.4 mg/L; 48 hr EC50 Daphnia magna – 3 mg/L, 72 hr EC50 algae 10-30 mg/L
Persistence and Degradability: Components are not readily biodegradable.
Bioaccumulative Potential: No data available.
Mobility in Soil: No data available
Other Adverse Effects: None known

13 - Disposal Considerations

If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Do not puncture or incinerate containers, even empty. Dispose in accordance with federal, state, and local regulations.
14 – Transportation Information

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty
(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)
IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY
ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1
*Note: Inner packages with less than 5 liters of liquid/ 5 kg of solid are exempt from Marine Pollutant per IMDG Code 2.10.2.7 and ICAO Special Provision A197.

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

U.S. Federal Regulations:
CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting. Oil spills are reportable to the National Response Center under the Clean Water Act. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:
Hazard Category for Section 311/312: Refer to Section 2 for the OSHA hazard classification
Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Reporting requirements: None
Section 302 Extremely Hazardous Substances (TPQ): None
EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification

16 – Other Information

HMIS Hazard Rating:
Health – 2 (moderate hazard), Fire Hazard – 2 (moderate hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: July 16, 2018
Supersedes: March 7, 2016

Revision Summary: Revised formulation – changes to Sections 3, 7, 8, 9, 12, 15.

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed by: I. Kowalski
Regulatory Affairs Department

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