




Material Safety Data Sheet

1 - Chemical Product and Company Identification

Manufacturer: WD-40 Company Address: 9715 Business Park Ave San Diego, CA , USA Post code: 92131 Telephone: +1-800-448-9340 +1-858-251-5600 24 Hour Emergency Phone Number: 1-888-324-7596 (PROSAR) Chemical Spills: 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)	Chemical Name: Organic Mixture Trade Name: WD-40 Specialist™ Fast Acting Degreaser Product Use: Cleaner, Degreaser MSDS Date Of Preparation: 7/29/13
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2 – Hazards Identification

GHS Classification: Flammable Aerosol Category 2 Eye Irritant Category 2A  WARNING! H223 Flammable aerosol H229 Pressurized container: may burst if heated. H319 Causes serious eye irritation. Prevention P210 Keep away from heat, sparks, open flames, hot surfaces – No smoking. P211 Do not spray on an open flame or other ignition source. P251 Pressurized container: Do not pierce or burn, even after use. P264 Wash thoroughly after handling. P280 Wear eye protection. Response P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. Storage P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
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3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	GHS Classification
Non-hazardous Ingredients	Mixture	Balance	Not Hazardous
2-(2-Butoxyethoxy)ethanol (Glycol Ether DB)	112-34-5	5-10%	Eye Irritant Category 2
Isopropyl Alcohol (Isopropanol)	67-63-0	1-5%	Flammable Liquid Category 2 Eye Irritant Category 2 Specific Target Organ Toxicity Single Exposure Category 3

			(nervous system effects)
Liquefied Petroleum Gas (propane, n-butane) or Isobutane propellant	68476-86-8 75-28-5	1-5%	Flammable Gas Category 1
Surfactants	Proprietary	<2%	Eye Damage Category 1 Aquatic Acute Toxicity Category 2

4 – First Aid Measures

Ingestion (Swallowed): Do not induce vomiting. Call a physician, poison control center, or the WD-40 Safety Hotline at 1-888-324-7596. Rinse mouth with water and give one eight-ounce glass of water to drink if the patient is conscious and responsive. Never give anything by mouth to an unconscious person.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

Skin Contact: Wash with soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if irritation persists or symptoms of exposure develop.

Inhalation (Breathing): If irritation is experienced, move to fresh air. Give artificial respiration or oxygen, if needed. Get medical attention if irritation or other symptoms persist.

Most Important Symptoms (acute and delayed): May cause eye irritation. Inhalation may cause drowsiness, dizziness and other nervous system effects.

Indication of Immediate Medical Attention or Special Treatment: Immediate medical attention is required for ingestion.

5 – Fire Fighting Measures

Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam.

Special Fire Fighting Procedures: 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.

Unusual Fire and Explosion Hazards: Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Concentrate is a flammable liquid. Vapors are heavier than air and may travel to remote ignition sources and flash back. A vapor and air mixture can create an explosion hazard in confined spaces.

6 – Accidental Release Measures

Remove personnel from general area. Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area. 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

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.

Storage: Store in a cool, well-ventilated area, away from incompatible materials and heat, sparks or open flame. Do not store in direct sunlight or above 120°F. U.F.C (NFPA 30B) Level 1 Aerosol.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
Surfactants	None Established
Isopropyl Alcohol (Isopropanol)	400 ppm TWA OSHA PEL

200 ppm TWA, 400 ppm STEL ACGIH TLV	
2-(2-Butoxyethoxy) ethanol	35 ppm TWA manufacturer recommended
Propane	1000 ppm TWA OSHA PEL 1000 ppm TWA ACGIH TLV (aliphatic hydrocarbon gas)
n-Butane	1000 ppm TWA ACGIH TLV (aliphatic hydrocarbon gas)
Isobutane	1000 ppm TWA ACGIH TLV
Non-hazardous Ingredients	None Established

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

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 or repeated 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

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

Boiling Point:	212°F (100° C)(concentrate)	Specific Gravity:	1.0 kg/l (concentrate) 0.955 kg/L (with propellant)
Solubility in Water:	Complete	pH:	10.5-11.5
Vapor Pressure:	Not Determined	Vapor Density:	Not Determined
Percent Volatile:	>95%	VOC:	6.5% (33.4 g/L)
Coefficient of Water/Oil Distribution:	Not Determined	Appearance/ Odor	Clear colorless liquid with a citrus odor.
Flash Point:	<0°F (propellant) 59°F (15° C)(concentrate with propellant ASTM D3828/US 16CFR 1500.45) >212°F (100°C) (concentrate only)	Flammability Limits:	LEL: 1.8% UEL: 17.1% (propellant)
Heat of Combustion:	~6 kJ/g	Ignition Distance (UN test):	No flame @ 15 cm
Enclosed space (UN Test):	T _{eq} = 79.5 s/m ³ D _{def} = 40 g/m ³		

10 – Stability and Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Avoid extreme heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.

Incompatibilities: Strong oxidizers.

Hazardous Decomposition Products: Thermal decomposition may yield carbon monoxide, carbon dioxide.

11 – Toxicological Information

Symptoms of Overexposure:

Inhalation: Mist or vapor can irritate the throat and lungs. Excessive inhalation 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 contact may cause defatting, dermatitis, and drying of the skin.

Eye Contact: May cause eye irritation with redness, tearing and blurred vision.

Ingestion: Swallowing may cause gastrointestinal irritation. Not expected to be acutely toxic.

Chronic Effects: 2-(2-butoxyethoxy) ethanol has caused effects on the liver and kidneys in studies with laboratory animals.

Medical Conditions Aggravated by Exposure: Preexisting eye and skin conditions may be aggravated by exposure.

Suspected Cancer Agent:

Yes No

Surfactant: Oral rat LD50 - 412-2394 mg/kg; Dermal rabbit LD50 - 1127-2395 mg/kg; Inhalation rat LC50 - 1.06 mg/L/4 hr

Isopropanol: Inhalation rat LC50 - 16,000 ppm/8 hr.; Oral rat LD50 - 5045 mg/kg; Dermal rabbit LD50 - 12,800 mg/kg

2-(2-Butoxyethoxy)ethanol: Oral rat LD50 - 5660 mg/kg; Dermal rabbit LD50 - 4000 mg/kg

Liquefied Petroleum Gas: No toxicity data is available

Isobutane: Inhalation rat LC50 - 570000 ppm/15 min.

None of the components of this product is listed as a carcinogen or suspected carcinogen or is considered a reproductive hazard.

12 – Ecological Information

Surfactant: 96 hr LC50 Fathead minnow – 3.2-3.6 mg/L (static test); 48 hr EC50 Daphnia magna – 7.3 mg/L (static test, immobilization)

Isopropanol: 96 hr LC50 Fathead minnow – 9490 mg/L; 48 hr EC50 Daphnia magna – 13299 mg/L.

2-(2-Butoxyethoxy)ethanol: 96 hr LC50 Bluegill – 1300 mg/L (static); 48 hr EC50 Daphnia magna - >100 mg/L

13 - Disposal Considerations

Aerosol containers should not be punctured, compacted in home trash compactors or incinerated. Empty containers may be disposed of through normal waste management options. Dispose of all waste product, absorbents, and other materials in accordance with applicable Federal, state and local regulations.

14 – Transportation Information

DOT Surface Shipping Description: Consumer Commodity, ORM-D

After 1/1/2014 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: WD-40 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 requirements, however, 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: Acute Health, Chronic Health, Fire Hazard, Sudden Release of Pressure

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

2-(2-butoxyethoxy)ethanol 5-10% (glycol ether compound)

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

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

Canadian WHMIS Classification: Class A (Compressed Gas), Class B-2 (Flammable Liquid), Class D-2-B (A toxic material causing other harmful effects)

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

China Regulations on the Control over Safety of Dangerous Chemicals: This product matches this regulation. All ingredients in this product has listed in IECSC(Inventory of Existing Chemical Substances in China 2010)

Korea: All of the components of this product are listed on the Korean chemical inventory.

Philippines: All of the components of this product are listed on the PICCS inventory.

Japan: All of the components of this product are listed on or exempt from the Japan chemical inventory.

16 – Other Information:

HMIS Hazard Rating:

Health – 1 (slight hazard), Fire Hazard – 2 (moderate hazard), Reactivity – 0 (minimal hazard)

Revision Date: July, 2013

Supersedes: New MSDS

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Approved by: ASM

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