

SAFETY DATA SHEET

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.

THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)

IMPORTANT: Read this SDS before handling & disposing of this product.

Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: GLASS CLEANER (CR517)
PRODUCT PURPOSE: GLASS CLEANER
COMPANY IDENTITY: Groom Industries
COMPANY ADDRESS: 4282 S 590 W
COMPANY CITY: Salt Lake City, UT 84123
COMPANY PHONE: 1-800-397-3759
EMERGENCY PHONES: INFOTRAC: 1-800-535-5053 (USA)

SECTION 2. HAZARDS IDENTIFICATION

DANGER!!

HAZARD STATEMENTS:

H100s = General, H200s = Physical, H300s = Health, H400s = Environmental

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H320 Causes eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.



PRECAUTIONARY STATEMENTS:

P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash with soap & water thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+352 IF ON SKIN: Wash with soap & water.

P304+340 IF INHALED: Remove victim to fresh air & keep at rest in a position comfortable for breathing.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present & easy to do - Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P332+313 If skin irritation occurs: Get medical advice/attention.

P337+313 If eye irritation persists, get medical advice/attention.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
1-Methoxy-2-propanol	107-98-2	203-539-1	Trade Secret
Isopropanol	67-63-0	200-661-7	Trade Secret

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

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SECTION 4. FIRST AID MEASURES**EYE CONTACT:**

For eyes, flush with plenty of water for 15 minutes & get medical attention.

SKIN CONTACT:

In case of contact with skin immediately remove contaminated clothing.
Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

INHALATION:

After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

SWALLOWING:

Rinse mouth. Do NOT induce vomiting. GET MEDICAL ATTENTION IMMEDIATELY.
Do NOT give liquids to an unconscious or convulsing person.

SECTION 5. FIRE FIGHTING MEASURES**FIRE & EXPLOSION PREVENTIVE MEASURES**

NO open flames. Above flash point, use a closed system, ventilation, explosion-proof electrical equipment, lighting.

EXTINGUISHING MEDIA

Use dry powder, alcohol-resistant foam, water spray, water in large amounts, carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used.
Do not enter confined fire-space without full bunker gear.
(Helmet with face shield, bunker coats, gloves & rubber boots).

UNUSUAL EXPLOSION AND FIRE PROCEDURES**COMBUSTIBLE!**

Reacts with most metals producing hydrogen which is extremely flammable & may explode.
Keep container tightly closed. Isolate from oxidizers, alkalis, heat, & open flame.
Applying to hot surfaces requires special precautions. Closed containers may explode if exposed to extreme heat. Empty container very hazardous! Continue all label precautions!
Check for peroxides prior to distillation, eliminate if found.

SECTION 6. ACCIDENTAL RELEASE MEASURES**SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:**

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel. ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area).

PERSONAL PROTECTIVE EQUIPMENT

The proper personal protective equipment for incidental releases (such as: 1 Liter of the product released in a well-ventilated area), use impermeable gloves, they should be Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard-hat, and Self-Contained Breathing Apparatus specific for the material handled, goggles, face shield, and appropriate body protection.

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

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SECTION 6. ACCIDENTAL RELEASE MEASURES (CONTINUED)**CONTAINMENT AND CLEAN-UP MEASURES:**

Absorb spilled liquid with polypads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material, (acid with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13 - Disposal Considerations).

SECTION 7. HANDLING AND STORAGE**HANDLING**

Isolate from oxidizers, alkalis, heat, & open flame. Use only with adequate ventilation. Avoid breathing of vapor or spray mist. Do not get in eyes, on skin or clothing. Wear OSHA Standard full face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse. Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, braze, or weld. Empty container very hazardous! Continue all label precautions! Check for peroxides prior to distillation, eliminate if found.

STORAGE

Keep in fireproof surroundings. Keep separated from strong oxidants. Keep cool. Keep in the dark. Do not store above 49 C/120 F. Keep container tightly closed & upright when not in use to prevent leakage. Reacts with most metals producing hydrogen which is extremely flammable & may explode. Wear full face shield, gloves & full protective clothing when opening or handling. When empty, drain completely, replace bungs securely.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
1-Methoxy-2-propanol	107-98-2	203-539-1	None Known	100 ppm
Isopropanol	67-63-0	200-661-7	400 ppm	200 ppm A4

MATERIAL	CAS#	EINECS#	CEILING	STEL(OSHA/ACGIH)	HAP
1-Methoxy-2-propanol	107-98-2	203-539-1	None Known	150 ppm	No
Isopropanol	67-63-0	200-661-7	None Known	400 ppm	No

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS

A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION

LOCAL EXHAUST:	Necessary	MECHANICAL (GENERAL):	Necessary
SPECIAL:	None	OTHER:	None

Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

PERSONAL PROTECTIONS:

Wear OSHA Standard goggles & gloves as a standard practice.

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SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	Clear Liquid
ODOR:	Light Alcohol
ODOR THRESHOLD:	Not Available
pH (Neutrality):	10.0
MELTING POINT/FREEZING POINT:	Not Available
BOILING RANGE (IBP,50%,Dry Point):	80 101 123* C/177 214 255* F(*=End Point)
FLASH POINT (TEST METHOD):	> 61 C / > 141 F
EVAPORATION RATE (n-Butyl Acetate=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Class IIIA
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	1.9 (Lowest Component)
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20 C	17.6
VAPOR DENSITY (air=1):	0.7
GRAVITY @ 68/68 F / 20/20 C:	
DENSITY:	0.994
SPECIFIC GRAVITY (Water=1):	0.995
POUNDS/GALLON:	8.292
WATER SOLUBILITY:	Complete
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	398 C / 750 F
DECOMPOSITION TEMPERATURE:	Not Available
VOCs (>0.044 Lbs/Sq In) :	Not Available
TOTAL VOC'S (TVOC)*:	0.2 Lbs/Gal
NONEXEMPT VOC'S (CVOC)*:	0.2 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	0.0 Wt%
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C)	0.0
VISCOSITY @ 20 C (ASTM D445):	Not Available

* Using CARB (California Air Resources Board Rules).

SECTION 10. STABILITY & REACTIVITY**STABILITY**

Stable under normal conditions.

CONDITIONS TO AVOID

Isolate from oxidizers, alkalis, heat, & open flame.

MATERIALS TO AVOID

The substance can presumably form explosive peroxides, under the influence of light and air. Check for peroxide prior to distillation, eliminate if found. Reacts with strong oxidants, acid chlorides, acid anhydrides, causing fire & explosion hazard. Reacts with aluminum. Reacts with amines, copper & its alloys.

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon Monoxide, Carbon Dioxide from burning.

HAZARDOUS POLYMERIZATION

Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION**ACUTE HAZARDS****EYE & SKIN CONTACT:**

Causes skin irritation, defatting, dermatitis. Absorption thru skin increases exposure. Causes eye irritation, redness, tearing, blurred vision. Wash thoroughly after handling.

INHALATION:

Severe respiratory tract irritation may occur. Vapor harmful. Breathing vapor can cause irritation. Acute overexposure can cause harm to affected organs by routes of entry.

SWALLOWING:

Harmful or fatal if swallowed.

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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED

Chronic overexposure can cause harm to affected organs by routes of entry.
 Persons with severe skin, liver or kidney problems should avoid use.

CHRONIC HAZARDS

CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:

This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.
 Product may contain impurities which may alter toxic properties.

IRRITANCY OF PRODUCT: This product is irritating to contaminated tissue.

SENSITIZATION TO THE PRODUCT: No component of this product is known as a sensitizer.

MUTAGENICITY: No known reports of mutagenic effects in humans.

EMBRYOTOXICITY: No known reports of embryotoxic effects in humans.

TERATOGENICITY: No known reports of teratogenic effects in humans.

REPRODUCTIVE TOXICITY: No known reports of reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to a developing embryo (such as: within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

MAMMALIAN TOXICITY INFORMATION

MATERIAL	CAS#	EINECS#	LOWEST KNOWN LETHAL DOSE DATA
Propylene Glycol Methyl Ether	107-98-2	203-539-1	LOWEST KNOWN LD50 (ORAL) 5230.0 mg/kg(Rats)
Isopropanol	67-63-0	200-661-7	LOWEST KNOWN LC50 (VAPORS) 1600 ppm (Rats)
Propylene Glycol Methyl Ether	107-98-2	203-539-1	LOWEST KNOWN LD50 (SKIN) 14100.0 mg/kg (Rabbits)

SECTION 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

EFFECT OF MATERIAL ON PLANTS AND ANIMALS:

This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

EFFECT OF MATERIAL ON AQUATIC LIFE:

The most sensitive known aquatic group to any component of this product is: Chub 1000 ppm or mg/L (24 hour exposure).
 Keep out of sewers and natural water supplies.

MOBILITY IN SOIL

This material is a mobile liquid.

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SECTION 12. ECOLOGICAL INFORMATION (CONTINUED)

DEGRADABILITY

This product is completely biodegradable.

ACCUMULATION

Bioaccumulation of this product has not been determined.

GREEN INGREDIENTS

>99.5% of ingredients are approved or on an approved list of at least one third party green certification organization. This >99.5% threshold earns our manufacturer Green Balance designation.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.

ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES.

SECTION 14. TRANSPORT INFORMATION

MARINE POLLUTANT: No
DOT/TDG SHIP NAME: NONBULK: Not Regulated
BULK: Not Regulated
DRUM LABEL: None
IATA / ICAO: Not Regulated
IMO / IMDG: Not Regulated
EMERGENCY RESPONSE GUIDEBOOK NUMBER: 128

SECTION 15. REGULATORY INFORMATION

EPA REGULATION:

SARA SECTION 311/312 HAZARDS: Acute Health

All components of this product are on the TSCA list.

This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

STATE REGULATIONS:

THIS PRODUCT MEETS REQUIREMENTS OF SOUTHERN CALIFORNIA AQMD RULE 443.1 & SIMILAR REGULATIONS

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):

This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

INTERNATIONAL REGULATIONS

The identified components of this product are listed on the chemical inventories of the following countries:

Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

B3: Combustible Liquid.
D2B: Irritating to skin / eyes.

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all information required by the CPR.

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SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NFPA): 1, HEALTH (HMIS): 1, FLAMMABILITY: 2, PHYSICAL HAZARD: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals
trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING

See Section 2 for Risk & Safety Statements. Employees should be made aware
of all hazards of this material (as stated in this SDS) before handling it.

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NOTICE

Groom Industries disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.