

MATERIAL SAFETY DATA SHEET

CPDO515

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product identifier : **AUTO GLASS CLEANER** (GUNK)
 Product Use : Automotive - Glass Cleaner
 Chemical Family : Mixture.
 Manufacturer part no. : GC1
 Supplier's name and address: Radiator Specialty Co., of Canada
 1711 Aimco Blvd.
 Mississauga, ON, Canada
 L4W 1H7
 24 Hr. Emergency Tel # : 613-996-6666 (CANUTEC)
 Manufacturer's name and address: Refer to Supplier

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	Wt.%	LC ₅₀ (4hr)	LD ₅₀	
			(Rat. iHL)	(Oral, rat)	(Rabbit, dermal)
n-Butane	106-97-8	3.00 - 7.00	276000 ppm ; 658000 mg/m3	N/Av	N/Av
2-Propanol	67-63-0	3.00 - 7.00	17000 ppm	4720 mg/kg	12890 mg/kg
2-butoxyethanol	111-76-2	1.00 - 5.00	450 ppm	470 mg/kg	220 mg/kg

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
 Colourless aerosol spray. Alcohol odour.
 WARNING! Contents under pressure. May cause severe eye irritation. May cause moderate to severe skin irritation.
 POISON! May be fatal if inhaled. May cause respiratory irritation. May cause central nervous system depression. May be fatal if ingested. May be an aspiration hazard. Contains material which may be a teratogen. Possible cancer hazard - contains material which may cause cancer.

POTENTIAL HEALTH EFFECTS

Target organs : Eyes, skin, respiratory system, digestive system, central nervous system. Contains material which can cause damage to the blood system, the liver and the kidneys.
 Routes of exposure : Inhalation: YES Skin Absorption: YES Skin & Eyes: YES Ingestion: YES
 Signs and symptoms of short-term (acute) exposure

Inhalation : Inhalation in very high concentrations may result in blood system effects, such as red blood cell fragility. May cause irritation to the nose, throat and upper respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Liver and kidney injuries may occur. In extremely high concentrations, product may act as an asphyxiant and cause increased breathing and pulse rates, fatigue and unconsciousness.
Skin : May cause moderate to severe skin irritation. May be absorbed and cause symptoms similar to those for inhalation.
Eyes : May cause moderate to severe irritation.
Ingestion : Ingestion may cause symptoms similar to inhalation. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

Potential chronic health effects : Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin. May cause liver and kidney damage.

Other important hazards : Contains material which may be a teratogen. Contains material which may cause cancer. See TOXICOLOGICAL INFORMATION, Section 11.

SECTION 4 - FIRST AID MEASURES

Inhalation : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get medical attention.

MSDS Preparation Date (dd/mm/yyyy): 22/06/2007

- Skin contact** : Remove/Take off immediately all contaminated clothing. Wash exposed area thoroughly with soap and water for at least 15 minutes. If irritation persists, seek prompt medical attention.
- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. Seek immediate medical attention/advice.
- Ingestion** : Seek immediate medical attention/advice. Do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES

- Fire hazards/conditions of flammability** : Not flammable under normal conditions of use. Closed containers are contained under pressure and may explode if exposed to excess heat for a prolonged period of time.
- Flash point** : 12°C (concentrate)
- Flash point Method** : Not reported
- Lower flammable limit (% by vol.)** : 1.1
- Oxidizing properties** : None known.
- Flame Projection Length** : N/Av
- Explosion data: Sensitivity to mechanical impact / static discharge** : Not expected to be sensitive to mechanical impact. Aerosols are sensitive to mechanical impact.
- Suitable extinguishing media** : Dry chemical, foam, carbon dioxide and water fog.
- Auto-ignition temperature** : N/Av
- Upper flammable limit (% by vol.)** : 12
- Flashback observed** : N/Av

- Special fire-fighting procedures/equipment** : Firefighters should wear proper protective equipment and self contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Shield personnel to protect from venting or rupturing containers. Water spray may be useful in cooling equipment exposed to heat and flame.

- Hazardous combustion products** : Carbon oxides; water vapour; irritating fumes and smoke .

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions** : All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up.
- Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.
- Spill response/cleanup** : Ventilate area of release. Remove all sources of ignition. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.
- Prohibited materials** : None known.

SECTION 7 - HANDLING AND STORAGE

- Safe Handling procedures** : Use in a well ventilated area. Wear suitable protective equipment during handling. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and flame. Avoid contact with incompatible materials. Do not puncture or incinerate. Wash thoroughly after handling.
- Storage requirements** : Store in a cool, dry, well-ventilated area. Keep away from direct sunlight.
- Incompatible materials** : Strong oxidizing agents; Halogenated compounds; Acids and bases; Metals.
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

Ingredients	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
n-Butane	1000 ppm	N/Av	800 ppm (final rule)	N/Av
2-Propanol	200 ppm	400 ppm	400 ppm ; 980 mg/m3	N/Av
2-butoxyethanol	20 ppm	N/Av	50 ppm ; 240 mg/m3	N/Av

Ventilation and engineering measures

- : Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.
- Respiratory protection** : If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised.
- Skin protection** : Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.
- Eye / face protection** : Chemical splash goggles are recommended.
- Other protective equipment** : Depending on conditions of use, an impervious apron should be worn. An eyewash station and safety shower should be made available in the immediate working area.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : Liquid aerosol. **Appearance** : Clear liquid.
- Odour** : Alcohol odour. **Odour threshold** : N/Av
- pH** : 10 (approximately)
- Boiling point** : 82.5-170°C (180-338°F) **Specific gravity** : 0.982
- Melting/Freezing point** : (-89.5) - 0°C [(-129) - 32°F] **Coefficient of water/oil distribution** : N/Av
- Vapour pressure (mmHg @ 20° C / 68° F)** : 30-40 **Solubility in water** : Complete
- Vapour density (Air = 1)** : >1 **Evaporation rate (n-Butyl acetate = 1)** : <1
- Volatile organic Compounds (VOC's)** : N/Av **Volatiles (% by weight)** : N/Av
- Absolute pressure of container** : N/Av **Viscosity** : N/Av

SECTION 10 - REACTIVITY AND STABILITY DATA

- Stability and reactivity** : Stable under the recommended storage and handling conditions prescribed. Hazardous polymerisation does not occur.
- Conditions to avoid** : Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.
- Materials To Avoid And Incompatibility** : Strong oxidizing agents; Halogenated compounds; Strong acids; Bases; Metals; Air; Light.
- Hazardous decomposition products** : None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

- Toxicological data** : There is no available data for the product itself, only for the ingredients. See Section 2.
- Carcinogenic status** : Contains 2-Butoxyethanol. 2-Butoxyethanol is classified as a confirmed animal carcinogen by ACGIH (Group A3).
- Reproductive effects** : Not expected to have other reproductive effects.

Teratogenicity : This product contains Isopropanol. Animal evidence suggests Isopropanol may be fetotoxic at doses that are not maternally toxic.
Mutagenicity : Not expected to be mutagenic in humans.
Sensitization to material : Not expected to be a skin or respiratory sensitizer.
Synergistic materials : None known or reported by the manufacturer.
Medical conditions aggravated by overexposure : None known or reported by the manufacturer.
Additional Health Hazards : None known or reported by the manufacturer.


SECTION 12 - ECOLOGICAL INFORMATION

Environmental effects : The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. No data is available on the product itself.
Important environmental characteristics : No data is available on the product itself.
Ecotoxicological : No data is available on the product itself.

SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle waste according to recommendations in Section 7. Do not puncture or incinerate containers.
Methods of Disposal : Dispose of in accordance with federal, provincial and local hazardous waste laws.

SECTION 14 - TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	UN1950	AEROSOLS	2.2	none	
TDG Additional Information	May be shipped as LIMITED QUANTITY when transported in containers no larger than 1.0 Litre, in packages not exceeding 30 kg gross mass. Under the TDGR, refer to Section 1.17 for additional exemption information, if shipping under this exemption.				

SECTION 15 - REGULATORY INFORMATION

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

Canadian WHMIS Classification: - -
 Class A (Pressurized containers)
 Class D1A (Materials Causing Immediate and Serious Toxic Effects, Very Toxic Material)
 Class D2A (Materials Causing Other Toxic Effects, Very Toxic Material)
 Class D2B (Materials Causing Other Toxic Effects, Toxic Material)



This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

SECTION 16 - OTHER INFORMATION

Legend : ACGIH: American Conference of Governmental Industrial Hygienists
 CAS: Chemical Abstract Services
 IARC: International Agency for Research on Cancer
 Inh: Inhalation
 N/Ap: not applicable
 N/Av: not available
 NIOSH: National Institute of Occupational Safety and Health
 OSHA: Occupational Safety and Health Administration
 PEL: Permissible exposure limit
 RTECS: Registry of Toxic Effects of Chemical Substances

STEL: Short Term Exposure Limit
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations
 TLV: Threshold Limit Values
 TWA: Time Weighted Average
 TSCA: Toxic Substance Control Act
 WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2006.
- 2. International Agency for Research on Cancer Monographs, searched 2007.
- 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2007 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.

<p>Prepared for: Radiator Specialty Co. of Canada 1711 Aimco Blvd. Mississauga, ON, Canada, L4W 1H7 Telephone: 905-625-9117 (Mon. - Fri., 9 AM - 5 PM) Please direct all enquiries to Radiator Specialty.</p>	
<p>Prepared by: ICC The Compliance Center Inc. Canada: 1-888-977-4834 USA: 1-888-442-9628 http://www.thecompliancecenter.com</p>	