

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: 495205
Product Name: Clarity Glass & Window Cleaner
Revision Date: Mar 05, 2018 **Supersedes Date:** Jan 26, 2017
Version: 2.0
Manufacturer's Name: Zenex International
Address: 1 Zenex Circle Cleveland, OH, US, 44146
Emergency Phone: 1-888-CAN-UTEC (226-8832)
Fax: (613) 954-5101
Product/Recommended Uses: Glass Cleaner

SECTION 2) HAZARDS IDENTIFICATION

Classification

Eye Irritation - Category 2B
Gases Under Pressure Liquefied Gas

Pictograms



Signal Word

Warning

Hazardous Statements - Physical

H280 - Contains gas under pressure; may explode if heated

Hazardous Statements - Health

H320 - Causes eye irritation

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.

Precautionary Statements - Prevention

P264 - Wash hands thoroughly after handling.

Precautionary Statements - 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 attention.

Precautionary Statements - Storage

P410 + P403 - Protect from sunlight. Store in a well-ventilated place.

Precautionary Statements - Disposal

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

SECTION 3) COMPOSITION, INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	2% - 3%
0000106-97-8	BUTANE	1% - 3%
0000064-17-5	ETHYL ALCOHOL	1% - 2%
0000074-98-6	PROPANE	0.1% - 2%
0000075-28-5	ISOBUTANE	0.1% - 2%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove to fresh air. Administer oxygen if needed. Apply artificial respiration if breathing has stopped. Get medical attention.

Eye Contact

Wash immediately with large volumes of fresh water for at least 15 minutes. Get medical attention.

Skin Contact

Wipe off with a towel. Wash with soap and water. Get medical attention if irritation persists.

Ingestion

Ingestion is not a likely route of exposure. Get medical attention if you feel unwell.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, Alcohol foam, CO₂, Dry Chemical, Water fog.

Unsuitable Extinguishing Media

Water may be ineffective but can be used to cool containers exposed to heat or flame.

Specific Hazards in Case of Fire

Closed containers may explode from internal pressure build-up when exposed to extreme heat and discharge contents. Liquid content of container will not support combustion. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent. Obtain medical attention. Hazardous decomposition products include carbon dioxide, carbon monoxide, and other toxic fumes.

Fire-Fighting Procedures

Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat.

Special Protective Actions

Wear goggles and use a self-contained breathing apparatus. If water is used, fog nozzles are preferred.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Avoid breathing vapors. Ventilate area. Remove all sources of ignition.

Recommended Equipment

Clean up with an absorbent material and place in closed containers for disposal.

Personal Precautions

Avoid breathing vapors. Ventilate area. Wear safety glasses and gloves.

Environmental Precautions

Stop spill/release if it can be done safely.



SECTION 7) HANDLING AND STORAGE

General

Do not puncture or incinerate (burn) cans. Do not stick pins, nails, or any other sharp objects into opening on top of can. Do not spray in eyes. Do not take internally.

Ventilation Requirements

Use in a well ventilated place.

Storage Room Requirements

Store and use in a cool, dry, well-ventilated area. Do not store above 120°F. See product label for additional information.

SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION

Eye Protection

Safety glasses with side shields should be used if indicated. Eye wash and safety showers in the workplace are recommended.

Skin Protection

Use solvent-resistant protective gloves for prolonged or repeated contact.

Respiratory Protection

In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use an approved air line respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Appropriate Engineering Controls

Ventilation should be sufficient to prevent inhalation of any vapors.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
BUTANE								800	1900			
ETHYL ALCOHOL	1000	1900			1			1000	1900			
ETHYLENE GLYCOL MONOBUTYL ETHER	50	240			1		1	5	24			
ISOBUTANE								800	1900			
PROPANE	1000	1800			1			1000	1800			

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
BUTANE	1000			
ETHYL ALCOHOL			1000	
ETHYLENE GLYCOL MONOBUTYL ETHER	20	97		
ISOBUTANE	1000			
PROPANE	See Appendix F: Minimal Oxygen			

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	7.95700 lb/gal
Density VOC	0.79529 lb/gal
% VOC	9.99485%
Appearance	N.A.
Odor Threshold	N.A.
Odor Description	N.A.
pH	10
Water Solubility	N.A.
Flammability	Flash point at or above 200°F/93°C
Flash Point Symbol	N.A.
Flash Point	N.A.
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Density	Slower than ether
Melting Point	N.A.
Freezing Point	N.A.
Low Boiling Point	N.A.
High Boiling Point	N.A.
Decomposition Pt	N.A.
Auto Ignition Temp	N.A.
Evaporation Rate	Slower than ether

SECTION 10) STABILITY AND REACTIVITY

Stability

The product is stable under normal storage conditions.

Conditions to Avoid

High temperatures.

Incompatible Materials

None known.

Hazardous Reactions/Polymerization

None known.

Hazardous Decomposition Products

Hazardous decomposition products may include carbon dioxide, carbon monoxide, and other toxic fumes.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

No data available

Classification of the substance or mixture

There is no toxicological data available for this product.

Serious Eye Damage/Irritation

Causes eye irritation

Carcinogenicity

No data available

Germ Cell Mutagenicity

No data available

Reproductive Toxicity

No data available

Respiratory/Skin Sensitization

No data available

Specific Target Organ Toxicity - Single Exposure

No data available

Specific Target Organ Toxicity - Repeated Exposure

No data available

Aspiration Hazard

No data available

Acute Toxicity

No data available

Potential Health Effects - Miscellaneous

0000064-17-5 ETHYL ALCOHOL

The following medical conditions may be aggravated by exposure: liver disease. Tests in some laboratory animals indicate this compound may have embryotoxic activity. Tests in animals demonstrate reproductive toxicity. Ingestion may cause any of the following: stupor (central nervous system depression), gastrointestinal irritation. If absorbed through the skin, may be: harmful.

0000111-76-2 ETHYLENE GLYCOL MONOBUTYL ETHER

Can be absorbed through the skin in harmful amounts. May cause injury to the kidneys, liver, blood and/or bone marrow. Repeated overexposure may result in damage to the blood. Eye contact may cause corneal injury. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

0000064-17-5 ETHYL ALCOHOL

LC50 (mouse): Approximately 21000 ppm (4-hour exposure); cited as 39 g/m³ (4-hour exposure) (1, unconfirmed)

LD50 (oral, rat): 7060 mg/kg (41); 10600 mg/kg (41); 13660 mg/kg (37)

LD50 (oral, mouse): 3450 mg/kg (1, unconfirmed)

LD50 (oral, guinea pig): 5560 mg/kg (37)

0000111-76-2 ETHYLENE GLYCOL MONOBUTYL ETHER

LC50 (female rat): 450 ppm (4-hour exposure) (2)

LC50 (male rat): 486 ppm (4-hour exposure) (2)

LD50 (oral, male weanling rat): 3000 mg/kg (1)

LD50 (oral, 6-week old male rat): 2400 mg/kg (1)

LD50 (oral, yearling male rat): 560 mg/kg (1)

LD50 (oral, female rat): 530 mg/kg; 2500 mg/kg (1) LD50 (oral, male mouse): 1230 mg/kg (1)

LD50 (oral, rabbit): 320 mg/kg (1)

LD50 (dermal, male rabbit): 406 mg/kg (cited as 0.45 mL/kg) (1)

0000075-28-5 ISOBUTANE

LC50 (mouse, inhalation): 520,000 ppm (52%); 2-hour exposure.(4)

0000106-97-8 BUTANE

LC50 (mouse): 202000 ppm (481000 mg/m³) (4-hour exposure); cited as 680 mg/L (2-hour exposure) (9)

LC50 (rat): 276000 ppm (658000 mg/m³) (4-hour exposure); cited as 658 mg/L (4-hour exposure) (9)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

No data available

Classification of the substance or mixture

There is no ecological data available for this product.

Persistence and Degradability

No data available.

Bio-Accumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information

UN number: UN1950

Proper shipping name: Aerosols, non-flammable, (each not exceeding 1 L capacity) (LTD QTY)

Hazard class: 2.2

IMDG Information

UN number: UN1950

Proper shipping name: Aerosols, non-flammable, (each not exceeding 1 L capacity) (LTD QTY)

Hazard class: 2.2

IATA Information

UN number: UN1950

Proper shipping name: Aerosols, non-flammable, (each not exceeding 1 L capacity)

Hazard class: 2.2

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	2% - 3%	SARA313, CERCLA, SARA312, VOC, TSCA, ACGIH, OSHA
0000106-97-8	BUTANE	1% - 3%	SARA312, VOC, TSCA, ACGIH
0000064-17-5	ETHYL ALCOHOL	1% - 2%	SARA312, VOC, TSCA, ACGIH, OSHA
0000074-98-6	PROPANE	0.1% - 2%	SARA312, VOC, TSCA, ACGIH, OSHA
0000075-28-5	ISOBUTANE	0.1% - 2%	SARA312, VOC, TSCA, ACGIH

SECTION 16) OTHER INFORMATION

Glossary

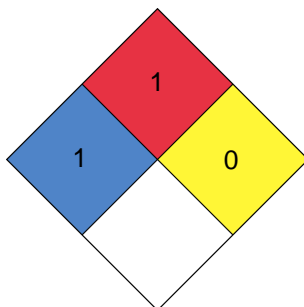
* There are points of differences between OSHA GHS and UN GHS. In 90% of the categories, they can be used interchangeably, but for the Skin Corrosion/Irritant Category and the Specific Target Organ Toxicity (Single and Repeated Exposure) Categories. In these cases, our system will say UN GHS.

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS

Health	/ 1
FLAMMABILITY	1
Physical Hazard	0
Personal Protection	A

NFPA



(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

Version 1.0:

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