Perfect Glass

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 11/20/2018 Revision date: 11/21/2018 Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture

Product name : Perfect Glass

Other means of identification : MD74

1.2. Recommended use and restrictions on use

Recommended use : Glass cleaner

Restrictions on use : Not determined

1.3. Supplier

Krown Rust Control
35 MAGNUM DRIVE
L0G 1T0 SCHOMBERG - CANADA
T (905) 939-8750

1.4. Emergency telephone number

Emergency number : (905) 939-8750

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS-CA)

Flammable liquids, Category 2	H226	
Acute toxicity (oral) Category 3	H301	Toxic if swallowed
Acute toxicity (dermal) Category 3	H311	Toxic in contact with skin
Specific target organ Category 1	H370	Causes damage to organs (liver, kidneys, central nervous system)
Causes serious eye irritation.	H319	

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-CA labelling

GHS02 GHS06 GHS07 GHS08

Hazard pictograms (GHS-CA) :

Signal word (GHS-CA) : Danger

Hazard statements (GHS-CA) : H226 – Flamable Liquid and vapour

H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled

H370 - Causes damage to organs (liver, kidneys, central nervous system, optic nerve) (Dermal, oral)

H319 - Causes serious eye irritation.

Precautionary statements (GHS-CA) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
P260 - Do not breathe mist, vapours, spray. No smoking.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor.

P321 - Specific treatment (see supplemental first aid instruction on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS-CA)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS-CA)
Methanol	acetone alcohol / alcohol C1 / alcohol, methyl / carbinol / colonial spirits / columbian spirits / green wood spirits / manhattan spirits / methyl alcohol / methyl hydrate / methyl hydroxide / methylen / methylol / monohydroxymethane / pyroligneous spirit / pyroxylic spirit / wood alcohol / wood naphtha	(CAS-No.) 67-56-1	9.0-14.0	Flam. Liq. 2, H226 H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
2-Butoxyethanol	2-Butoxy-1-ethanol / Butoxyethanol / Ethanol, 2-butoxy- / Ethylene glycol monobutyl ether / Ethylene glycol n-butyl ether / Hydroxyethyl butyl ether / Ethylene glycol butyl ether / 2-Butoxyethan-1-ol / Ethylene glycol mono-n-butyl ether / 2-n-Butoxyethanol / Butyl glycol / BUTOXYETHANOL / EGBE / EGMBE / Butoxyethanol, 2- / Butyl Cellosolve / 2-Butyl Cellosolve	(CAS-No.) 111-76-2	5.0<	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : Not applicable.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Unsuitable extinguishing media

Unsuitable extinguishing media : Not determined.

5.3. Specific hazards arising from the hazardous product

No additional information available

5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : In case of large spillages: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Shovel or sweep up and put in a closed container for disposal. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-Butoxyethanol (111-76-2)		
Canada (Quebec)	VEMP (mg/m³)	97 mg/m³
Canada (Quebec)	VEMP (ppm)	20 ppm
Alberta	OEL TWA (mg/m³)	97 mg/m³
Alberta	OEL TWA (ppm)	20 ppm
British Columbia	OEL TWA (ppm)	20 ppm
Ontario	OEL TWA (ppm)	20 ppm
Methanol (67-56-1)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	250 ppm
NIOSH	NIOSH REL (TWA) (mg/m³) NIOSH REL (TWA) (ppm) NIOSH REL (STEL) (mg/m³) NIOSH REL (STEL) (ppm)	250 mg/m³ 200 ppm 325 mg/m³ 250 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Materials for protective clothing:

Wear long sleeves

Hand protection:

Protective gloves

Eye protection:

Chemical goggles or safety glasses. Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Colour	:	Blue Clear
Odour	:	NA
Odour threshold	:	No data available
pH	:	NA
Relative evaporation rate (butylacetate=1)	:	> 1
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	Not applicable
Freezing point	:	0 °C
Boiling point	:	65.0 °C
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not applicable
Vapour pressure	:	No data available
Vapour pressure at 50 °C	:	No data available
Relative vapour density at 20 °C	:	0.6
Relative density	:	1.100
Solubility	:	Soluble.
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	70 mPa.s
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	Oxidizing agents and strong acids.
Incompatible materials	:	Peroxides. Sodium hypochlorite.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced. On combustion, forms: carbon oxides (CO and CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Dermal: Not classified.
Acute toxicity (inhalation)	:	Not classified

Methanol (67-56-1)	
LD50 oral rat	1187 - 2769 mg/kg body weight (BASF test, Rat, Male/female, Weight of evidence)
LD50 dermal rabbit	17100 mg/kg (Rabbit, Inconclusive, insufficient data)
LC50 inhalation rat (mg/l)	128.2 mg/l air (BASF test, 4 h, Rat, Male/female, Weight of evidence)
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppm V/4h
ATE US (vapours)	3 mg/l/4h

Methanol (67-56-1)	
ATE US (dust, mist)	0.5 mg/l/4h

2-Butoxyethanol (111-76-2)	
LD50 oral rat	470 mg/kg
LD50 dermal rabbit	99 mg/kg
LC50 inhalation rat (ppm)	486 ppm/4h

Skin corrosion/irritation : Causes skin irritation.
pH: NA

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity : Not classified
Chronic aquatic toxicity : Not classified

Methanol (67-56-1)	
LC50 fish 1	15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value)
ErC50 (algae)	22000 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)

2-Butoxyethanol (111-76-2)	
LC50 fish 1	1490 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC50 fish 2	2950 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Log Pow	0.81 (at 25 °C)

12.2. Persistence and degradability

Perfect Glass	
Persistence and degradability	Not established.
Methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No test data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O_2/g substance
Chemical oxygen demand (COD)	1.42 g O_2/g substance
ThOD	1.5 g O_2/g substance

12.3. Bioaccumulative potential

Perfect Glass	
Bioaccumulative potential	Not established.

2-Butoxyethanol (111-76-2)	
Log Pow	0.81 (at 25 °C)

2-Butoxyethanol (111-76-2)	
Methanol (67-56-1)	
BCF fish 1	1 - 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
Log Pow	-0.77 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Perfect Glass	
Ecology - soil	Not established.

2-Butoxyethanol (111-76-2)	
Log Pow	0.81 (at 25 °C)
Methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)
Log Koc	-0.89 - -0.21 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

Ozone : Not classified

Effect on the global warming : Not established.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

14.1. Basic shipping description

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1230 Methanol, 3, II

UN-No.(DOT) : UN1230

Proper Shipping Name (DOT) : Methanol

Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : II - Medium Danger

Hazard labels (DOT) : 3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx) : 202

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Symbols : D - Proper shipping name for domestic use only, or to and from Canada

DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C(59 F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

SECTION 15: Regulatory information

15.1. National regulations

PERFECT GLASS		
Not listed on the Canadian DSL (Domestic Substances List)		
Methanol (67-56-1)		
Listed on the Canadian DSL (Domestic Substances List)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Acute toxicity (any route of exposure) Health hazard- Specific target organ toxicity	
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372		
Methanol	CAS-No. 67-56-1	14.0%
2-Butoxyethanol (111-76-2)		
Listed on the Canadian DSL (Domestic Substances List)		

Water (7732-18-5)
Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

EU-Regulations

No additional information available

National regulations

No additional information available

Methanol (67-56-1)
U.S. - California - Proposition 65 – Carcinogens - No
U.S. - California - Proposition 65 – Developmental - Yes
U.S. - California - Proposition 65 – Reproductive - No
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on Turkish inventory of chemical

2-Butoxyethanol (111-76-2)	
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on Turkish inventory of chemical	
Toxic Substance (CEPA – Schedule I)	Yes

Water (7732-18-5)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16: Other information

Date of issue : 09/26/2018

Revision date : 11/21/2018

Other information : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H-statements:

H226	Flammable liquid and vapour
H227	Combustible liquid
H301	Toxic if swallowed
H302	Harmful if swallowed.
H311	Toxic in contact with skin
H312	Harmful in contact with skin.

H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H370	Causes damage to organs

SDS Canada (GHS)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product