MATERIAL SAFETY DATA SHEET

Tech Grade Propylene Glycol

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product/Chemical Name: Clear Choice Tech Grade Propylene Glycol
Product Description: Propylene Glycol
Chemical Family: Propylene Glycol
CAS Registry: 57-55-6
Manufacturer: Clear Choice
9009 Quince St, Unit C
Henderson CO 80640
303-227-9900

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO	% (BY WEIGHT)
Propylene Glycol	57-55-6	100.0

AIHA WEEL 10.000 mg/m3 – TWA aerosol only
AIHA WEEL 50.000 ppm – TWA total

SECTION 3 - HAZARDOUS IDENTIFICATION

Potential Health Effects:

Eyes: May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

Skin: May cause mild skin irritation. Symptoms may include redness and burning of skin. Although rare, skin contact with propylene glycol may cause allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects). Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing: Swallowing this material is not likely to be harmful.

Inhalation: It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material is not likely to be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (see section 8.)

Symptoms of Exposure: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness).

Target Organ Effects: Overexposure of this material (or its components) has been suggested as a cause of the following effect in laboratory animals: kidney damage.

Developmental Information: Propylene glycol was not harmful to the fetus in laboratory animal studies.

Cancer Information:	This material is not expected to cause cancer in humans since it did not cause cancer in laboratory animals. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.
Other Health Effects:	Propylene glycol may be absorbed in potentially harmful amounts when applied in large quantities to severe burns (second or third degree) over large areas of the body as part of a cream or other topical application. Absorption under such circumstances can elevate serum osmolality and may result in osmotic shock.
Primary Route(s) of Entry:	Inhalation, skin absorption, skin contact, eye contact, ingestion.

SECTION 4 - FIRST AID MEASURES

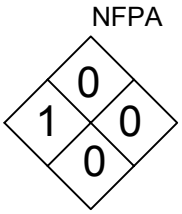
Emergency and First Aid Procedures:	**Eye contact:**	If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.
	Skin contact:	Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.
	Ingestion:	First aid is not normally required. If symptoms develop, seek medical attention.
	Inhalation:	If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quite; seek immediately medical attention.

Note to Physicians: Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions), kidney.

Special Precautions/Procedures: None known

SECTION 5 - FIRE-FIGHTING MEASURES

Unusual Fire Fighting procedures: None known
Flash Point: 211.0 F (99.4 C) TCC
Flash Point Method: Not applicable
NFPA Rating: Health – 0, Flammability – 1, Reactivity - 0
Explosive Limit: (for product) Lower 2.6 Upper 12.6 %
Autoignition Temperature: 700.0 F (371.1 C)
Hazardous Products of Combustion: May form: carbon dioxide and carbon monoxide, organic compounds



Extinguishing Media: Alcohol resistant (AR) foam, water fog, carbon dioxide, dry chemical.

Fire-Fighting Instructions: DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire-exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

Unusual Fire Fighting procedures: Not required

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill/Leak Procedures:	**Small Spill:**	Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill:	Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area or spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers. Per good environmental management practices, prevent run-off to sewers, streams and other bodies of water. Stop spill at the source. Cover sewer grates and dike the spill. Absorb spilled material on to absorbents. Shovel materials into container. Close container tightly and dispose of properly.
Regulatory Requirements:	None

SECTION 7 - HANDLING AND STORAGE

Handling Precautions:	Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. **Warning**. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published “autoignition” or “ignition” temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.
Storage Requirements:	None

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection:	Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.
Skin Protection:	Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.
Respiratory Protections:	If overexposure has been determined, a NIOSH/MSHA jointly approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators under specified conditions. (See your safety equipment supplier.) Engineering or administrative controls should be implemented to reduce exposure.
Engineering Controls:	Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known suspected or apparent adverse effects).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance and color:	Clear, viscous. State: liquid. Form: neat. Color: water-white
Odor:	Slight/Odorless
Freezing Point:	< -76.0 F (-60.0 C)
Boiling Point:	(for product) 365.0 - 374.0 F (185.0 - 190.0 C) at 760 mmHg
Viscosity:	46.0 cps
Molecular Weight:	76.1
Solubility in Water:	Complete
Octanol/Water Partition Coefficient:	< 1.000
Bulk Density:	1.160 lbs/ft3
Vapor Pressure (at 68°F):	(for product) 0.220 mmHg
Specific Vapor Density (Air=1):	2.600
Specific Gravity (at 68°F):	1.037
Liquid Density (at 68°F):	8.640 lbs/gal (1.037 kg/l at 20ºC)
Percent Volatiles:	100 %

Volatile Organic Compounds (VOC):	100.000 %, 1037.000 g/l, 8.640 lbs/gal
Evaporation Rate:	< 0.01 (N-BUTYL ACETATE)
pH:	No data

SECTION 10 - STABILITY AND REACTIVITY

Stability:	Stable.
Polymerization:	Product will not undergo hazardous polymerization.
Chemical Incompatibilities:	Avoid contact with: strong acids, strong bases, strong oxidizing agents.
Hazardous decomposition products:	May form: carbon dioxide, carbon monoxide, organic compounds.

SECTION 11 - TOXICOLOGICAL INFORMATION

No data

SECTION 12 - ECOLOGICAL INFORMATION

Soil Absorption/Mobility:	No data

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Management Information:	Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs – including disposal, recycling and waste stream reduction, contact Clear Choice.

SECTION 14 - TRANSPORT INFORMATION

DOT Information – 49 CFR 172.101:

DOT Description:	NON-REGULATED BY D.O.T.
Container/Mode:	55 GAL DRUM/TRUCK PACKAGE
NOS Component:	None.
RQ (Reportable Quantity):	Not applicable.
Other Transportation Information:	The transport information may vary with the container and mode of shipment.

SECTION 15 - REGULATORY INFORMATION

US Federal Regulations:

TSCA (Toxic Substances Control Act) Status:	The intentional ingredients of this product are listed.
CERCLA RQ – 40 CFR 302.4 (a):	None listed.
Section 311/312 Hazard Class – 40 CFR 370.2	Immediate ( ) Delayed (X) Fire ( ) Reactive ( ) Sudden Release of Pressure ( )
SARA 313 Components – 40 CFR 372.65:	None.
OSHA Process Safety Management – 29 CFR 1910:	None listed.
EPA Accidental Release Prevention – 40 CFR 68:	None listed.

International Regulations:

Inventory Status:

AICS (Australia) The intentional ingredients of this product are listed.
DSL (Canada) The intentional ingredients of this product are listed.
ECL (South Korea) The intentional ingredients of this product are listed.
EINECS (Europe) The intentional ingredients of this product are listed.
ENCS (Japan) The intentional ingredients of this product are listed.
IECSC (China) The intentional ingredients of this product are listed.
PICCS (Philippines) The intentional ingredients of this product are listed.

State and Local Regulations:

California Proposition 65:	None
Pennsylvania RTK Label:	1.2 – PROPANEDIOL 57-55-6

SECTION 16 - OTHER INFORMATION

Additional Hazard Rating Systems: NONE

Disclaimer: THE INFORMATION GIVEN HEREIN IS GIVEN IN GOOD FAITH AND FROM SOURCES WE BELIEVE RELIABLE. BUT NO WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS IS MADE.

The conditions or methods of handling, storage, use and disposal of this 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 this product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not apply.

CONSULT Company listed in Section 1. FOR FURTHER INFORMATION.