AMERICAN TORCH TIP ATTC®

CREATING A BETTER EXPERIENCE

SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

American Torch Tip Company
6212 29th Street East
Bradenton, FL 34203
U.S.A.

Phone: 800-342-8477
Phone: 941-753-7557
Fax: 941-753-6917
www.americantorchtip.com

Emergency Phone Numbers
Company 941-753-7557 Normal Business Hours
USA Chemtrec 800-424-9300 24 Hours
International Chemtrec 703-527-3887

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Product From: Substance
Substance Name: **PROPYLENE GLYCOL INDUSTRIAL**
Chemical Name: 1,2-Propanediol
CAS No: 57-55-6
Formula: C3H8O2
Synonyms: 1,2-dihydroxypropane / 1,2-propylene glycol / 2,3-propanediol / alpha-propylene glycol /DOWFROST / methyl ethylene glycol / methylethyl glycol / monopropylene glycol / MPG (=monopropylene glycol) / PG 12 / propane-1,2-diol / propylene glycol / propylene glycol USP / SIRLENE / SOLAR WINTER BAN / SOLARGARD P / trimethyl glycol / UCAR 35
BIG no: 10375

RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Use of the substance/mixture: Anti-freezing agent, Manufacture of rubber products, polymer production, Use as binders and releaseagents, Solvent
Recommended restrictions on use: For industrial use only., This product is Not for Human Consumption.

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture: GHS-US classification
Not classified as hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

2.2 Label elements: GHS-US labeling
Not classified as hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

2.3 Other Hazards:
No additional information available.

2.4 Unknown acute toxicity (GHS-US):
Not applicable.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCE

Name	Product Identifier	%	GHS-US classification
Propylene Glycol (Main constituent)	(CAS No) 57-55-6	>=99.0	Not classified

3.2 MIXTURE
Not applicable

SECTION 4 - FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

First-aid measures, general: ..... May cause irritation of the eyes, skin and mucous membranes. Always observe self-protection methods. Move out of dangerous area. Remove contaminated shoes and clothing. Show this material safety data sheet to the doctor in attendance.

First-aid measures, after inhalation: ..... Remove the victim into fresh air. In the case of inhalation of aerosol/ mist consult a physician if necessary. Not expected to present a significant inhalation hazard under anticipated conditions of normal use. Avoid inhalation of hot vapors or extremely high concentrations of aerosols.

First-aid measures, after skin contact: .. Rinse with water. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

First-aid measures, after eye contact: ... Flush eyes with water thoroughly and continuosly for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, consult a specialist.

First-aid measures, after ingestion: ..... Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

SECTION 4 - continued on next page

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Symptoms/injuries: ..... AFTER ABSORPTION OF HIGH QUANTITIES: Cramps/uncontrolled muscular contractions.

Symptoms/injuries, after inhalation: ..... EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing. Feeling of weakness.

Symptoms/injuries, after skin contact: .. Slight irritation. ON CONTINUOUS EXPOSURE/CONTACT: Red skin. Dry skin.

Symptoms/injuries, after eye contact: ... Redness of the eye tissue. Slight irritation.

Symptoms/injuries, after ingestion: ..... AFTER ABSORPTION OF HIGH QUANTITIES: Nausea. Abdominal pain.

Chronic symptoms: ..... ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Change in the haemogramme/blood composition. Decreased renal function.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No additional information available

5.1 EXTINGUISHING MEDIA

Suitable extinguishing media: ..... SMALL FIRE: Use dry chemicals, CO2, water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, water fog or alcohol-resistant foam.

Unsuitable extinguishing media: ..... Do not use solid water stream.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Fire hazard: ..... Heat from fire can generate flammable vapor. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point. Fight fire from a safe distance/protected location. Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/ injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Although water soluable, may not be practical to extinguish fire by water dilution. Notify authorites immediately if liquid enters sewer/ public waters. Refer to NFPA Code 13 for guidance in using propylene glycol in sprinkler system applications.

Explosioon hazard: ..... INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see “Reactivity Hazard”

Reactivity: ..... Upon combustion: CO and CO2 are formed. Reacts violently with (strong) oxidizers: (increased) risk of fire. Violent to explosive reaction with (strong) acids.

5.3 ADVICE FOR FIREFIGHTERS

Precautionary measures fire: ..... Exposure to fire/heat: keep upwind. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.

Firefighting instructions: ..... Cool tanks/drums with water spray/remove them into safety.

Protection during firefighting: ..... Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighter’s protective clothing will only provide limited protection.

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

6.1.1 For non-emergency personnel

Protective equipment: ..... Gloves. Protective clothing. See “Material-Handling” to select protective clothing.

Emergency procedures: ..... Mark the danger area. No naked flames. Wash contaminated clothes. In case of reactivity hazard: consider evacuation.

6.1.2 For emergency responders: ... No additional information available.

6.2 ENVIRONMENTAL PRECAUTIONS

Try to prevent the material from entering drains or water courses.

SECTION 6 - continued on next page

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

For containment: ..... Extinguish ignition sources ; stop release ; prevent flow to sewers or public waters. Notify fire and environmmental authorities. Impound/ recover large land spill ; soak up small spill with inert solids.

Methods for cleaning up: ..... Use suitable disposal containers. On water, material is soluble and may float or sink. Contain/ collect rapidly to minimize dispersion. Disperse residue to reduce aquatic harm. Report per regulatory requirements.

6.4 REFERENCE TO OTHER SECTIONS

No additional information available

7.1 PRECAUTIONS FOR SAFE HANDLING

Precautions for safe handling: ..... Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Use earthed equipment. Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosion-proof appliances. Finely divided: spark- and explosion-proof appliances. Finely divided: keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Heat-ignition: ..... KEEP SUBSTANCE AWAY FROM: heat sources.

Prohibitions on mixed storage: ..... KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. (strong) acids. water/moisture.

Storage area: ..... Store in a cool area. Store in a dry area. Store at ambient temperature. Keep out of direct sunlight. Ventilation at floor level. Provide the tank with earthing. Meet the legal requirements.

Special rules on packaging: ..... SPECIAL REQUIREMENTS: closing. clean. dry. correctly labelled. meet the legal requirements. Secure fragile packaging in solid containers.

Packaging materials: ..... SUITABLE MATERIAL: stainless steel. carbon steel. aluminum. copper. bronze. nickel. steel with plastic inner lining. MATERIAL TO AVOID: No data available.

8.1 CONTROL PARAMETERS

Consult local authorities for acceptable exposure limits.

8.2 EXPOSURE CONTROLS

Hygiene measures: ..... Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use.

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Use good personal hygiene practices.

Wash hands before eating, drinking, smoking, or using toilet facilities.

Hand protection: ..... Not normally considered a skin hazard. Use chemical resistant gloves appropriate to conditions of use.

Eye protection: ..... Use splash goggles when eye contact due to splashing or spraying liquid is possible.

Skin and body protection: ..... No special clothing/ skin protection equipment is recommended under normal conditions of anticipated use. Where use can result in skin contact, practice good personal hygiene.

Respiratory protection: ..... No special respiratory protection equipment is recommended under anticipated conditions of normal use.

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state: ..... Liquid.

Appearance: ..... Liquid.

Color: ..... Colorless, clear.

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Odor	Almost odorless
Odor threshold	No data available :
pH	6.5 - 7.5 (50 %)
pH solution	50 %
Melting point	-20 °C
Freezing point	No data available
Boiling point	184 °C
Critical temperature	352 °C
Flash point	104 °C
Relative evaporation rate (butyl acetate=1)	< 0.1
Flammability (solid, gas)	No data available
Explosion limits	2.60 - 12.60 vol % 80 - 400 g/m³
Explosive properties	No data available
Oxidizing properties	This substance or mixture is not classified as oxidizing.
Vapor pressure	0.2 hPa (20 °C)
Vapor pressure at 50 °C	3 hPa (50 °C)
Relative density	1.0
Relative vapor density at 20 °C	2.60
Relative density of saturated gas/air mixture	1.0
Specific gravity / density	1038 kg/m³
Molecular mass	76.10 g/mol
Solubility	Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in chloroform. Soluble in 1,4-dioxane. Soluble in pine oil. Water: Complete Ethanol: Complete Ether: 12 g/100ml Acetone: Complete
Log Pow	-1.41 - -0.30 (-0.92; Experimental value; -1.07; Experimental value; Equivalent or similar to OECD 107; 20.5 °C)
Auto-ignition temperature	400 °C
Decomposition temperature	Not determined
Viscosity	No data available
Viscosity, kinematic	42.1 mm2/s (at 25°C)
Viscosity, dynamic	0.058 Pa.s (20 °C)

9.2 OTHER INFORMATION

Specific conductivity	4.40 µS/m
Saturation concentration	0.54 g/m³
VOC content	100 %
Other properties	Gas/vapour heavier than air at 20°C. Clear. Hygroscopic. Slightly volatile.

SECTION 10 - STABILITY AND REACTIVITY

10.1 REACTIVITY
Stable under recommended storage conditions

10.2 CHEMICAL STABILITY
Stable under recommended storage conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS
Not expected to occur. This material is stable when properly handled and stored.

SECTION 10 - continued on next page

10.4 CONDITIONS TO AVOID

High temperatures, oxidizing conditions. May degrade when exposed to light or other radiation sources.

10.5 INCOMPATIBLE MATERIALS

Reacts with strong oxidizing agents. Strong acids. Isocyanates.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Carbon Monoxide and other toxic vapors.

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity: Not classified

Propylene Glycol Industrial (57-55-6)	
LD50 oral rat	20000 mg/kg (Rat; Experimental value)
LD50 dermal rat	22500 mg/kg (Rat; Experimental value)
LD50 dermal rabbit	20800 mg/kg (Rabbit; Experimental value)
ATE US (oral)	20000.000 mg/kg body weight
ATE US (dermal)	20800.000 mg/kg body weight

Skin corrosion/irritation	Not classified pH: 6.5 - 7.5 (50 %)
Serious eye damage/irritation	Not classified pH: 6.5 - 7.5 (50 %)
Respiratory or skin sensitization Germ cell	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified
Symptoms/injuries after inhalation	EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing. Feeling of weakness.
Symptoms/injuries after skin contact	Slight irritation. ON CONTINUOUS EXPOSURE/CONTACT: Red skin. Dry skin.
Symptoms/injuries after eye contact	Redness of the eye tissue. Slight irritation.
Symptoms/injuries after ingestion	AFTER ABSORPTION OF HIGH QUANTITIES: Nausea. Abdominal pain.
Chronic symptoms	ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Change in the haemogramme/blood composition. Decreased renal function.

12.1 TOXICITY

Ecology - general	Classification concerning the environment: not applicable.
Ecology - air	Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.5.
Ecology - water	Ground water pollutant. Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia) (EC50 (48h) > 1000 mg/l). Not harmful to algae (EC50 (72h) >1000 mg/l). Not harmful to bacteria (EC50 >1000 mg/l).

Propylene Glycol Industrial (57-55-6)	
EC50 Daphnia 1	34400 mg/l (EC50; 48 h)
LC50 fish 2	51600 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss)

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12.2 PERSISTENCE AND DEGRADABILITY

Propylene Glycol Industrial (57-55-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.96 - 1.08 g O_2/g substance
Chemical oxygen demand (COD)	1.63 g O_2/g substance
ThOD	1.69 g O_2/g substance
BOD (% of ThOD)	0.57

12.3 BIOACCUMULATIVE POTENTIAL

Propylene Glycol Industrial (57-55-6)	
Log Pow	-1.41 - -0.30 (-0.92; Experimental value; -1.07; Experimental value; Equivalent or similar to OECD 107; 20.5 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4 MOBILITY IN SOIL

Propylene Glycol Industrial (57-55-6)	
Surface tension	0.036 N/m (25 °C)

12.5 OTHER ADVERSE EFFECTS

No additional information available

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Waste disposal recommendations: Remove waste in accordance with local and/or national regulations. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Do not discharge into surface water. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

SECTION 14 - TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT)

In accordance with DOT

Not regulated for transport

TDG

No additional information available

TRANSPORT BY SEA

No additional information available

AIR TRANSPORT

No additional information available

SECTION 15 - REGULATORY INFORMATION

15.1 US FEDERAL REGULATIONS

Propylene Glycol Industrial (57-55-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 INTERNATIONAL REGULATIONS

CANADA

No additional information available

EU-REGULATIONS

No additional information available

NATIONAL REGULATIONS

No additional information available

SECTION 15 - continued on next page

SECTION 15 - REGULATORY INFORMATION continued

15.3 US STATE REGULATIONS

Propylene Glycol Industrial (57-55-6)	
State or local regulations	U.S. - New Jersey - Right to Know Hazardous Substance List
	U.S. - Pennyslvania - Right to Know Hazardous Substance List

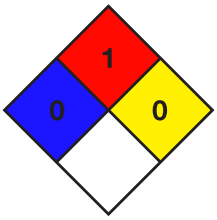
SECTION 16 - OTHER INFORMATION

Revision date..... 11/16/2015

NFPA health hazard..... 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard..... 1 - Must be preheated before ignition can occur.

NFPA reactivity..... 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS US (GHS HazCom 2012)