PROJECTION TUBE COOLANT **803-LIQUID**

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: Projection Tube Coolant

SDS Code: 803-Liquid

Related Part # 803-250ML, 803-500ML

Recommended Use and Restriction on Use

Use: For use in cooling projection tubes

Uses Advised Against: Not available

Details of Manufacturer or Importer

Manufacturer
MG Chemicals
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA

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FAX +1-800-340-0773
E-MAIL support@mgchemicals.com
WEB www.mgchemicals.com

MG Chemicals (Head Office)
9347-193 Street
Surrey, British Columbia V4N 4E7
CANADA

☎ +1-905-331-1396
FAX +1-905-331-2682
E-MAIL info@mgchemicals.com

E-MAIL (Competent Person): sds@mgchemicals.com

Emergency Phone Number

For hazardous material incidents ONLY—leaks, spills, fires, exposures or accidents
USA or CANADA: Call CHEMTREC ☎: ***+1-800-424-9300***

For emergencies involving dangerous goods; Collect 24/7
CANADA: Call CANUTEC ☎: ***+1-613-996-6666*** or ****666*** on cellular phones

Section 2: Hazards) Identification

Classification of Hazardous Chemical

GHS Categories

Criteria		Category	Signal Word	Pictograms
Acute Toxicity	Oral	4	Warning	Exclamation
Specific Target Organ Toxicity	Repeated Exposure	2	Warning	Health

Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

Label Elements

Signal Word	**WARNING**
Pictograms	**Hazard Statements**
	H302: Harmful if swallowed
	H373: May cause damage to organs (kidney) through prolonged or repeated exposure
Prevention	**Precautionary Statements**
P102	Keep out of reach of children.
P260	Do not breathe mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
Response	**Precautionary Statements**
P301 + P312, P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth
P314	Get medical advice/attention if you feel unwell.

Section continued on the next page

Disposal	Precautionary Statements
P501	Dispose of contents/container in accordance to local/regional/international regulations.

Hazards Not Otherwise Classified

Other Criteria	Hazard Statements / Precautionary Statement	Signal Word	Pictograms
None	None	None	None

Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	% (weight)
107-21-1	1,2-ethanediol	70%
56-81-5	1,2,3-propanetriol	30%

Section 4: First-Aid Measures

Exposure Condition	*GHS Code/Symptoms/Precautionary Statements*
IF SWALLOWED	P301 + P312, P330
Immediate Symptoms	*abdominal pain, nausea, unconsciousness, vomiting*
Response	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
IF ON SKIN	P303 + P352, P314
Immediate Symptoms	*dry skin*
Response	Wash with plenty of water. Get medical advice/attention if you feel unwell.
IF IN EYES	P305 + P351 + P338
Immediate Symptoms	*redness, irritation, pain*
Response	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED	P304 + P340, P314
Immediate Symptoms	*cough, dizziness, headache, respiratory irritation*
Response	Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

Section 5: Fire-Fighting Measures

Extinguishing Media	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
Specific Hazards	Produces irritating smoke of unknown toxicity in fires. Prevent fire-fighting wash from entering waterway or sewer system.
Combustion Products	Produces toxic fumes and carbon oxides
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

Section 6: Accidental Release Measures

Personal Protection	Use personal protection recommended in Section 8.
Precautions for Response	Remove or keep away all sources of extreme heat or open flames. Do not breathe the mist/spray/vapors.
Environmental Precautions	Avoid releasing to the environment. Prevent spill from entering drains and waterways.
Containment Methods	Contain with inert and non-flammable absorbent (such as soil, sand, vermiculite).
Cleaning Methods	Collect liquid in a sealable, chemical-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wash spill area with soap and water to remove the last traces of residue.
Disposal Methods	Dispose of spill waste according to Section 13.

Section 7: Handling and Storage

Prevention	Keep out of reach of children. Do not breathe mist/vapors/spray.
Handling	Wear protective gloves/protective clothing/eye protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
Storage	Not applicable.

Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

Chemical Name	Country	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
1,2-ethanediol	ACGIH	Not established	100 mg/m^3
	U.S.A. OSHA PEL	Not established	Not established
	Canada AB	Not established	100 mg/m^3
(aerosol)	Canada BC	Not established	100 mg/m^3
(vapor)	Canada BC	Not established	50 mg/m^3
(particulate)	Canada BC	10 mg/m^3	20 mg/m^3
	Canada ON	Not established	100 mg/m^3
(mist/vapor)	Canada QC	Not established	127 mg/m^3
1,2,3-propanetriol	ACGIH	Not established	Not established
(mist)	U.S.A. OSHA PEL	15 mg/m^3	Not established
	Canada AB	10 mg/m^3	Not established
	Canada BC	10 mg/m^3	Not established
	Canada ON	10 mg/m^3	Not established
	Canada QC	10 mg/m^3	Not established

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH[1], OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from by RTECS database[2] and data from suppliers' SDS were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

Engineering Controls

Ventilation Keep airborne concentrations below the occupational exposure limits (OEL).

Personal Protective Equipment

Eye protection Wear appropriate protective eyeglasses or chemical safety goggles.

Recommendation: Ensure that glasses have side shields for lateral protection.

Skin Protection For likely contacts, use polyvinyl alcohol (PVA), viton, or other chemically resistant gloves.

For incidental contacts, use nitrile or other chemically resistant gloves.

Section continued on the next page

Respiratory Protection

For over-exposures up to 10 x OEL of mist/vapors/spray, wear respirator such as a half-mask respirator with organic vapor cartridges.

Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.

RECOMMENDATION: Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be fitted to the employee by a professional. Ensure vapor cartridges are stored in sealed plastic bags when not being used.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

Section 9: Physical and Chemical Properties

Physical State	Liquid	**Lower Flammability Limit** [a]	3.2%
Appearance	Clear, colorless	**Upper Flammability Limit** [a]	15.3%
Odor	Mild	**Vapor Pressure @20 °C**	0.11 hPa [0.08 mmHg]
Odor Threshold	Not available	**Vapor Density**	>2 (Air =1)
pH	Not available	**Specific Gravity @25 °C**	1.15
Freezing/Melting Point	Not available	**Solubility in Water**	Soluble
Boiling Point	182 °C [359 °F]	**Partition Coefficient**	Not available
Flash Point [b]	111 °C [231 °F]	**Auto-ignition Temperature**	400 °C [752 °F]
Evaporation Rate	Not available	**Decomposition Temperature**	Not available
Flammability (solid, gas)	Not applicable	**Viscosity @40 °C**	Not available

a) Using Raoult's Law
b) Closed cup

Section 10: Stability and Reactivity

Reactivity	Not available
Chemical Stability	Chemically stable at normal temperatures and pressures.
Conditions to Avoid	Avoid excessive heat and incompatible substances. Do not use in a way that forms fumes, vapors, mist, or that aerosolizes the product.
Incompatibilities	Strong oxidizing agents, strong bases, strong acids
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

Section 11: Toxicological Information

Routes of Exposure

Ingestion, Skin Contact, Inhalation and Eye Contact

Symptoms Summary

Eyes	Cause redness, eye irritation and pain.
Skin	Cause dry skin.
Inhalation	May cause cough, dizziness, headaches and respiratory irritation.
Ingestion	Cause abdominal pain, nausea, unconsciousness and vomiting
Chronic	May have effects on the central nervous system, resulting in abnormal eye movements (nystagmus).

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
1,2-ethanediol	7 712 mg/kg Rat	10 626 mg/kg Rabbit	Not established
1,2,3-propanetriol	12 600 mg/kg Rat	10 000 mg/kg Rabbit	Not established

Note: Toxicity data from the RTECS[2] and ECHA databases were consulted. The data from supplier (M)SDS were also consulted.

Section continued on the next page

Other Toxicological Effects

Skin corrosion / irritation	Based on available data, the classification criteria are not met.
Serious eye damage / irritation	Based on available data, the classification criteria are not met.
Sensitization (allergic reactions)	Based on available data, the classification criteria are not met.
Carcinogenicity (risk of cancer)	Based on available data, the classification criteria are not met.
Mutagenicity (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
Reproductive Toxicity (risk to sex functions)	Based on available data, the classification criteria are not met.
Teratogenicity (risk of fetus malformation)	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Prolonged or repeated over-exposure to 1,2-ethanediol can cause damage to kidneys.
Aspiration hazard	Based on available data, the classification criteria are not met.

Section 12: Ecological Information

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (http://echa.europa.eu), and other reliable sources.

Acute Ecotoxicity

Based on available data, the classification criteria are not met.

Chronic Ecotoxicity

Based on available data, the classification criteria are not met.

Section continued on the next page

Biodegradability

Readily biodegradable

Other Effects

Actual VOC (Volatile Organic Compounds) content according to the US (EPA) and Canadian (CEPA) authorities.

Actual VOC = 100% [1151 g/L]

Section 13: Disposal Information

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

Section 14: Transport Information

Ground

Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations); **USA DOT 49 CFR** (Parts 100 to 185) **Regulations.**
Non Regulated

Air

Refer to ICAO-IATA Dangerous Goods Regulations.
Non Regulated

Sea

Refer to IMDG regulations.
Non Regulated

Note: **Shipper must be appropriately <u>trained and certified</u> before involvement with the transport of dangerous goods.**

Section 15: Regulatory Information

Canada

Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)

All hazardous ingredients are listed on the DSL.

Industry and Science Canada

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product are in compliance.

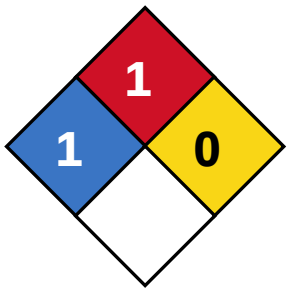
USA

Other Classifications

HMIS® RATING

HEALTH:	* 1
FLAMMABILITY:	1
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product contains ethylbenzene and xylene that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product does contains 1,2-ethanediol (CAS# 107-21-1), which is subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

Section continued on the next page

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, June 06, 2014 revision, USA).

This product contains ethylene glycol (ingested), which is listed as a developmental toxic substance in California.

Europe

RoHS (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, and complies with European RoHS regulations.

WEEE (Waste Electrical and Electronic Equipment Directive)

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

Section 16: Other Information

SDS Prepared by	Michel Hachey
Date of Review	11 July 2016
Supersedes	09 November 2010

Reason for Changes: Format changes in compliance with the HCS2012 and WHMIS 2015.

Reference

1) ACGIH *2013 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices*, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2013).

2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
ECHA	European Chemicals Agency
EU	European Union
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
IARC	International Agency for Research on Cancer
NOELR	No observable effect loading ratio
NTP	National Toxicology Program
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit

Section continued on the next page

SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

Technical Queries Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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