

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Description • Purple, blue or white liquid

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Protective coating

1.3 Details of the supplier of the safety data sheet

Manufacturer • IKONICS Corporation

4832 Grand Ave. Duluth, MN 55807 United States www.ikonics.com sds@ikonics.com

Telephone (General) • (218) 628-2217

Telephone (General) • (800) 328-4261 - Toll free

1.4 Emergency telephone number

Chemtrec • 1-800-424-9300 - Within USA and Canada

+1 703-527-3887 - Outside USA and Canada (collect calls accepted)

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

CLP • Not classified

2.2 Label Elements

CLP

Hazard statements · Not classified

Precautionary statements

Prevention • P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response • P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

if you feel unwell.

P302+P352 - IF ON SKIN: Wash with plenty of soap and 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.

Storage/Disposal • P501 - Dispose of content and/or container in accordance with local, regional, national,

and/or international regulations.

2.3 Other Hazards

CLP • No data available

UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Eighth Revised Edition

2.1 Classification of the substance or mixture

UN GHS

· Not classified

2.2 Label elements

UN GHS

Hazard statements · Not classified

Precautionary statements

Prevention • Wear protective gloves/protective clothing/eye protection/face protection.

Response • IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

Storage/Disposal • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

UN GHSNo data available

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • Not classified

Precautionary statements

Prevention • Wear protective gloves/protective clothing/eye protection/face protection.

Response • IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

Storage/Disposal • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012 • No data available

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015 • Not classified

2.2 Label elements

WHMIS 2015

Hazard statements • Not classified

Precautionary statements

Prevention • Wear protective gloves/protective clothing/eye protection/face protection.

Response • IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

IF ON SKIN: Wash with plenty of water and soap.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

Storage/Disposal • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

WHMIS 2015

 No data available

2.4 Other information



Section 3 - Composition/Information on Ingredients

3.1 Substances

3.2 Mixtures

	Composition					
Chemical Name Identifiers		%	LD50/LC50 Classifications According to Regulation/Directive			
1,2-Propanediol	CAS:57-55-6 EC Number:200-338-0	0% TO 4%	Ingestion/Oral-Rat LD50 • 20 g/kg	CLP / OSHA / WHMIS: Eye Irrit. 2 UN GHS Revision 6: Skin Irrit. 3; Eye Irrit. 2A		

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

• IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position

comfortable for breathing. If not breathing, give artificial respiration. Call 911 or emergency

medical service.

Skin • IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical

advice/attention.

• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

• If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Rinse

mouth. Never give anything by mouth to an unconscious person. If large quantities are

swallowed, call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing • SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Media LARGE FIRE: Water spray, fog or regular foam.

Unsuitable • No data available

Extinguishing Media

Firefighting Procedures • Fire fighters should wear complete protective clothing including self-contained breathing

apparatus.

Keep unauthorized personnel away. Ventilate closed spaces before entering.

LARGE FIRES: Use extinguishing agent suitable for type of surrounding fire.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and **Explosion Hazards** Material may burn, but does not ignite readily.

Hazardous Combustion • Products of combustion include: carbon oxides (COx).

Products

5.3 Advice for firefighters

 Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Wear chemical protective clothing that is specifically recommended by the manufacturer.

It may provide little or no thermal protection.

Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

 Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not walk through spilled material.

Emergency Procedures

 No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

LARGE SPILLS: Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

 Use appropriate Personal Protective Equipment (PPE) Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in suitable container.

6.4 Reference to other sections

 Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

· Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

 Store away from extreme heat. Do not freeze. Keep container closed when not in use.

7.3 Specific end use(s)

Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines							
Res	Result Australia Canada Ontario Ireland New Zealand						
1,2-Propanediol (57-55-6)	VAs	vapour and particulates); 474 mg/m3 TWA (total vapour and	10 mg/m3 TWA (for assessing the visibility in a work environment where 1,2-Propylene glycol aerosol is present.	vapour and particulates); 470 mg/m3 TWA (total vapour and	1 //	25 ppm TWA; 79 mg/m3 TWA	

		mg/m3 TWA (particulates only)	aerosol only); 50 ppm TWA (aerosol and vapor); 155 mg/m3 TWA (aerosol and vapor)	mg/m3 TWA (particulate)	(particulates only)	
	STELs	Not established	Not established	450 ppm STEL (calculated, total vapour and particulates); 1410 mg/m3 STEL (calculated, total vapour and particulates); 30 mg/m3 STEL (calculated, particulate)	Not established	Not established
		Ex	posure Limits/Gu	idelines (Con't.)		
			Result		South Africa	
1,2-Propanediol (57-55-6)			TWAs	150 ppm TWA (particulate and vapour); 470 mg/m3 TWA (particulate and vapour); 10 mg/m3 TWA (particulate)		

8.2 Exposure controls

Engineering Measures/Controls

 Local exhaust is recommended but not required. Provide adequate ventilation as necessary.

Personal Protective Equipment Pictograms



Respiratory

Eye/Face

Hands

Skin/Body

General Industrial Hygiene

Considerations

Environmental Exposure Controls

• In case of insufficient ventilation, wear suitable respiratory equipment.

• Wear protective eyewear (goggles, face shield, or safety glasses).

• Wear protective gloves - rubber or neoprene.

• Wear protective clothing - apron or other impervious body coverings.

• Handle in accordance with good industrial hygiene and safety practice.

No data available

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Viscous liquid.
Color	Purple, blue or white	Odor	No data available.
Odor Threshold	No data available		
General Properties			
Boiling Point	100 °C(212 °F)	Melting Point/Freezing Point	0 °C(32 °F)
Decomposition Temperature	No data available	рН	No data available
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Soluble
Viscosity	10500 to 16500 Centipoise (cPs, cP) or mPas @ 25 °C(77 °F)	Explosive Properties	Not relevant
Oxidizing Properties:	Not relevant		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	VOC (Wt.)	0 to 4 %
Volatiles (Wt.)	73 to 77 %		
Flammability			
Flash Point	> 200 °F(> 93.3333 °C)	UEL	No data available
LEL	No data available	Autoignition	Not relevant
Flammability (solid, gas)	Non-flammable in liquid form. When dry, product will burn as an		

	ordinary combustible material.		
Environmental			
Half-Life	No data available	Octanol/Water Partition coefficient	No data available
Coefficient of water/oil distribution	No data available	Bioaccumulation Factor	No data available
Bioconcentration Factor	No data available	Biochemical Oxygen Demand BOD/BOD5	No data available
Chemical Oxygen Demand	No data available	Persistence	No data available
Degradation	No data available		

9.2 Other Information

· No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

· No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

• Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

· Hazardous polymerization will not occur.

10.4 Conditions to avoid

· Avoid freezing. Excess heat.

10.5 Incompatible materials

· No data available.

10.6 Hazardous decomposition products

 No decomposition is expected under normal storage and use conditions. Hazardous decomposition products formed under fire conditions - carbon oxides (COx).

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Ī	Components				
	1,2-Propanediol (0% TO 4%)	57-55- 6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 20 g/kg; Irritation: Eye-Rabbit • 100 mg • Mild irritation; Skin-Human • 104 mg 3 Day(s)-Intermittent • Moderate irritation		

Potential Health Effects

Inhalation

Acute (Immediate)

May cause mild irritation.

Chronic (Delayed)

Repeated and prolonged exposure may cause irritation.

Skin

Acute (Immediate)

· May cause mild irritation.

Chronic (Delayed)

· Repeated and prolonged exposure may cause irritation.

Eye

Acute (Immediate)

· May cause irritation.

Chronic (Delayed)

Repeated and prolonged exposure may cause irritation.

Ingestion

Acute (Immediate)

· Under normal conditions of use, no health effects are expected.

Chronic (Delayed)• No specific information available.

Section 12 - Ecological Information

12.1 Toxicity

Components				
1,2-Propanediol (0% TO 4%)		Aquatic Toxicity-Fish: 96 Hour(s) LC50 Pimephales promelas 710 mg/L [Fresh water]		
1,2 1 10panioaion (0 /0 10 1/0)	0. 00 0	Aquatic Toxicity-Crustacea: 48 Hour(s) EC50 Water Flea Daphnia magna >1000 mg/L		

12.2 Persistence and degradability

· No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

· No data available

12.6 Other adverse effects

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste • Dispose

• Dispose of content in accordance with local, regional, national, and/or international

regulations.

Packaging waste
• Dispose of container in accordance with local, regional, national, and/or international

regulations.

13.2 Other Information

Dispose of wastes in an approved waste disposal facility.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	NDA	NDA	NDA	NDA
IMO/IMDG	NDA	NDA	NDA	NDA	NDA
IATA/ICAO	NDA	NDA	NDA	NDA	NDA

14.6 Special precautions for user

· None specified.

14.7 Transport in bulk according to Annex II of

· Not relevant.

Marpol and the IBC Code 14.8 Other information

DOT • Not regulated.

IMO/IMDG • Not regulated.

IATA/ICAO • Not regulated.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Not classified

State Right To Know						
Component	Component CAS NJ PA					
1,2-Propanediol	57-55-6	Yes	Yes			

Inventory							
Component	CAS	Australia AICS	Canada DSL	China	EU EINECS	Japan ENCS	
1,2-Propanediol	57-55-6	Yes	Yes	Yes	Yes	Yes	
	Inventory (Con't.)						

Component	CAS	Korea KECL	New Zealand	Philippines PICCS	TSCA
1,2-Propanediol	57-55-6	Yes	Yes	Yes	Yes

Australia

Labor

Australia - High Volume Industrial Chemicals List

•1,2-Propanediol 57-55-6

Canada

Labor

Canada - WHMIS 1988 - Classifications of Substances

•1,2-Propanediol Uncontrolled product
•1,2-Propanediol 57-55-6 according to WHMIS classification criteria

Canada - WHMIS 1988 - Ingredient Disclosure List

•1,2-Propanediol 57-55-6 1 %

Environment

Canada - Council of Ministers of the Environment - Water Quality Guidelines for Freshwater Aquatic Life

•1,2-Propanediol 57-55-6 500000 µg/L (listed under Glycols)

Germany

Environment

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

•1,2-Propanediol ID Number 280, hazard class 1 - low hazard to

waters

Law)

Japan

Environment

Inventory - Japan - Industrial Safety and Health Law Substances (ISHL)

2-(8)-321, 2-(8)-323; (2)-234 (ENCS inventory number, considered an existing substance based on the Industrial Safety and Health

Group 4 Flammable liquids;

Other

•1,2-Propanediol

Japan - Chemical Substance Control Law (CSCL) - Examined Existing Chemical Substances

•1,2-Propanediol 57-55-6 Readily biodegradable ([2-

234])

57-55-6

Japan - Fire Service Law - Hazardous Materials

•1,2-Propanediol 57-55-6 3rd Class Petroleum - soluble; Hazard rank III

15.2 Chemical Safety Assessment

 No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.3 Other Information

 California Proposition 65: This product can expose you to chemicals known to the State of California to cause cancer:

Sodium o-phenylphenate CAS No. 132-27-4 < 0.07%

Section 16 - Other Information

Relevant Phrases (code & full text)

• P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.

P302+P352 - IF ON SKIN: Wash with plenty of soap and 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.

P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Classification method for mixtures

· Calculation method.

Last Revision Date

• 01 October 2018 • 12 October 2020

Preparation Date Other Information

Approved by: Troy Bergstedt, Director of Chemical Research, (218) 628-2217 ext.142.

Liability

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