

# Safety Data Sheet

## CYCLE 2

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	CYCLE 2
<b>Other Means of Identification</b>	L2232
<b>Recommended Use</b>	Machine Dishwasher Additive.
<b>Restrictions on Use</b>	Industrial Use Only - Keep Away from Children.
<b>Manufacturer</b>	Chemisphere Solutions Ltd., 15 Calder Place, St. Albert, Alberta, T8N 5A6
<b>Supplier Identifier</b>	Chemisphere Solutions Ltd., 15 Calder Place, St. Albert, Alberta, T8N 5A6
<b>Emergency Phone No.</b>	CANUTEC, 613 966 - 6666, 24 Hours Alberta Poison Centre, (800) 332 - 1414, 24 Hours
<b>SDS No.</b>	00030034

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Flammable liquid - Category 3; Acute toxicity (Oral) - Category 4; Serious eye damage - Category 1

#### Label Elements



Signal Word:  
Warning

#### Hazard Statement(s):

Flammable liquid and vapour.  
Causes serious eye irritation.  
Harmful if swallowed.  
Causes serious eye damage.

#### Prevention:

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
Keep container tightly closed.  
Use explosion-proof electrical, ventilating, and lighting equipment.  
Use only non-sparking tools.  
Wash hands thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.

#### Response:

If SWALLOWED: Call a POISON CENTRE/doctor/ if you feel unwell.  
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 or attention.  
If skin irritation occurs: Get medical advice/attention.  
In case of fire: Use appropriate foam to extinguish.

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

Disposal:  
Dispose of contents and container in accordance with local, regional, national and international regulations.

**Other Hazards**

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
2-Propanol	67-63-0	5-10	
		7-13	
Citric acid	77-92-9	1-5	

## SECTION 4. FIRST-AID MEASURES

### First-aid Measures

#### Inhalation

Move to fresh air. If symptoms develop or persist, seek medical attention at once.

#### Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Rinse skin with water. If irritation persists, get medical attention.

#### Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Quickly and gently blot or brush chemical off the face. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. If symptoms develop or persist, seek immediate medical advice/attention.

#### Ingestion

Immediately call a Poison Centre or doctor. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

### Most Important Symptoms and Effects, Acute and Delayed

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### Immediate Medical Attention and Special Treatment

#### Medical Conditions Aggravated by Exposure

None known.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog. Special "alcohol resistant fire-fighting foams".

### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Product

See Section 9 (Physical and Chemical Properties) for flash point and explosive limits. Closed containers may rupture violently when heated releasing contents.

Very toxic carbon monoxide, carbon dioxide; irritating chemicals; toxic chemicals.

### Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: flammable or explosive atmosphere.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Eliminate all ignition sources if safe to do so. Get expert advice.

### Environmental Precautions

It is good practice to prevent releases into the environment.

### Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so.

Small spills or leaks: flush spill area. Large spills or leaks: do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. Place used absorbent into suitable, covered, labelled containers for disposal. Contaminated absorbent poses the same hazard as the spilled product.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid breathing in this product. Avoid repeated or prolonged skin contact. Do not get in eyes. Do not swallow. Avoid release to the environment. Do not spray on an open flame or other ignition source. Do not pierce or burn container, even after use. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Do not weld, cut or perform hot work on empty container until all traces of product have been removed. Electrically bond and ground equipment. Ground clips must contact bare metal. General hygiene considerations: do NOT smoke in work areas. Wash hands thoroughly after handling this material. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

### Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, out of direct sunlight and away from heat and ignition sources, clear of combustible and flammable materials (e.g. old rags, cardboard), separate from incompatible materials (see Section 10: Stability and Reactivity).

Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet. Comply with all applicable health and safety regulations, fire and building codes.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
2-Propanol	200 ppm	400 ppm				
Citric acid	Not established		Not established			

### Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

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**Eye/Face Protection**

Wear chemical safety goggles.

**Skin Protection**

Wear chemical protective clothing e.g. gloves, aprons, boots.

**Respiratory Protection**

Not normally required if product is used as directed.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Basic Physical and Chemical Properties**

<b>Appearance</b>	Blue.
<b>Odour</b>	Alcoholic
<b>Odour Threshold</b>	Not available
<b>pH</b>	8.1
<b>Melting Point/Freezing Point</b>	Not available (melting); -5 °C (23 °F) (freezing)
<b>Initial Boiling Point/Range</b>	100 °C (212 °F)
<b>Flash Point</b>	47 °C (117 °F) (closed cup)
<b>Evaporation Rate</b>	~ 0.3
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limit</b>	Not applicable (upper); Not applicable (lower)
<b>Vapour Pressure</b>	~ 2.33 kPa (17.48 mm Hg)
<b>Vapour Density (air = 1)</b>	~ 0.6
<b>Relative Density (water = 1)</b>	0.972
<b>Solubility</b>	Soluble in all proportions in water; Not available (in other liquids)
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); ~ 1 centipoises (dynamic)

## SECTION 10. STABILITY AND REACTIVITY

**Reactivity**

Not reactive under normal conditions of use.

**Chemical Stability**

Normally stable.

**Possibility of Hazardous Reactions**

None expected under normal conditions of storage and use.

**Conditions to Avoid**

Heat. Prolonged exposure to high temperatures.

**Incompatible Materials**

Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides), strong acids (e.g. hydrochloric acid).

**Hazardous Decomposition Products**

Very toxic carbon monoxide, carbon dioxide; very toxic, flammable formaldehyde.

## SECTION 11. TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure**

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Inhalation; skin contact; eye contact; ingestion.

#### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
2-Propanol	17000 ppm (rat) (4-hour exposure)	4720 mg/kg (male rat)	12890 mg/kg (rabbit)
Citric acid		3000 mg/kg (rat)	Not available
		Not available	Not available

#### Skin Corrosion/Irritation

May cause very mild irritation based on information for closely related chemicals.

#### Serious Eye Damage/Irritation

Causes serious eye irritation based on skin irritation information.

#### STOT (Specific Target Organ Toxicity) - Single Exposure

##### Inhalation

May cause nose and throat irritation, depression of the central nervous system.

##### Skin Absorption

No information was located.

##### Ingestion

May be harmful May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

#### Aspiration Hazard

Not known to be an aspiration hazard.

#### STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above. Following skin contact: symptoms may include dry, red, cracked skin (dermatitis).

#### Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

#### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Citric acid	Not Listed			

Not known to cause cancer.

#### Reproductive Toxicity

##### Development of Offspring

Not known to harm the unborn child.

##### Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

##### Effects on or via Lactation

Not known to cause effects on or via lactation.

#### Germ Cell Mutagenicity

Not known to be a mutagen.

#### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

This section is not required by OSHA HCS 2012. This section is not required by WHMIS 2015.

## SECTION 14. TRANSPORT INFORMATION

This section is not required by WHMIS 2015. This section is not required by OSHA HCS 2012.

Not regulated under Canadian TDG regulations.

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

This section is not required by OSHA HCS 2012. This section is not required by WHMIS.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Chemisphere Solutions Ltd

**Phone No.** (780) 460-4670

**Date of Preparation** April 03, 2018

**Date of Last Revision** October 14, 2020

**Key to Abbreviations** IARC = International Agency for Research on Cancer  
HSDB® = Hazardous Substances Data Bank  
OSHA = US Occupational Safety and Health Administration

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).  
HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS).