



**SECTION 1: PRODUCT IDENTIFICATION**

<b>PRODUCT NAME</b>	<b>ISOPROPANOL (70%) (Sterile) [1 Gal.(3.8L) Bottle]</b>
<b>PRODUCT CODE</b>	<b>2408</b>
<b>SUPPLIER</b>	<b>MEDISCA Inc.</b> Tel.: 1.800.932.1039   Fax.: 1.855.850.5855 661 Route 3, Unit C, Plattsburgh, NY, 12901 6641 N. Belt Line Road, Suite 130, Irving, TX, 75063 <b>MEDISCA Pharmaceutique Inc.</b> Tel.: 1.800.665.6334   Fax.: 514.338.1693 4509 Rue Dobrin, St. Laurent, QC, H4R 2L8 21300 Gordon Way, Unit 153/158, Richmond, BC V6W 1M2 <b>MEDISCA Australia PTY LTD</b> Tel.: 1.300.786.392   Fax.: 61.2.9700.9047 Unit 7, Heritage Business Park 5-9 Ricketty Street, Mascot, NSW 2020
<b>EMERGENCY PHONE</b>	CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 NSW Poisons Information Centre: 131 126 National Chemical Emergency Centre 44(0)1235239670
<b>RECOMMENDED USES</b>	Industrial/Lab Use Only
<b>RESTRICTIONS ON USE</b>	Not applicable

**SECTION 2: HAZARDS IDENTIFICATION**

<b>GHS CLASSIFICATION</b>	Flammable Liquid (Category 2) Acute Toxicity - Inhalation (Category 5) Specific Target Organ Toxicity - Single Exposure (Category 3) - CNS
<b>PICTOGRAM</b>	 
<b>SIGNAL WORD</b>	Danger
<b>HAZARD STATEMENT(S)</b>	Highly flammable liquid and vapor. Vapour/air mixtures are explosive. Causes serious eye irritation. Causes skin irritation. May cause drowsiness or dizziness. May be harmful if swallowed or inhaled.
<b>ADVERSE PHYSIOCHEMICAL, HUMAN HEALTH AND ENVIRONMENTAL EFFECTS</b>	Repeated exposure may cause skin dryness or cracking.

**PRECAUTIONARY STATEMENT(S)**
**Prevention**

Keep away from heat, sparks, open flames and No smoking  
 Keep container tightly closed  
 Ground/Bond container and receiving equipment  
 Use explosion-proof equipment  
 Use non-sparking tools  
 Take action to prevent static discharges  
 Wear protective gloves, protective clothing, eye and face protection.  
 Wash thoroughly after handling.  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Avoid breathing dust, fume, gas, mist, vapors and spray.  
 Use only outdoors or in a well-ventilated area.

**Response**

IN CASE OF FIRE: Use powder, alcohol-resistant foam, water in large amounts, carbon dioxide. In case of fire: keep drums, etc., cool by spraying with water.  
 IF ON SKIN (HAIR): Take off immediately all contaminated clothing. Rinse affected areas with water/shower.  
 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 EXPOSED OR CONCERNED: Get medical advice/attention.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor. Get medical help if you feel unwell.

**Storage**

Store in a well-ventilated place.  
 Keep cool.  
 Store locked up.

**Disposal**

Dispose of contents and/or container in accordance with local regulations.

**HMIS CLASSIFICATION**
**Health Hazard**

2

**Flammability**

3

**Reactivity**

1

**Personal Protection**

E

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**
**CHEMICAL NAME**

2-propanol

**BOTANICAL NAME**

Not applicable

**SYNONYM**

2-Propyl alcohol; 1-Methylethanol; Secondary Propyl Alcohol; Propan-2-ol; IPA

**CHEMICAL FORMULA**

Not applicable

**CHEMICAL FAMILY**

Not available

**CAS NUMBER**

Not applicable

**ALTERNATE CAS NUMBER**

Not applicable

**MOLECULAR WEIGHT**

Not applicable

**COMPOSITION**

CHEMICAL NAME	CAS NUMBER	EC NUMBER	% BY WEIGHT
ISOPROPYL ALCOHOL	67-63-0	200-661-7	70% v/v

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

**NOTES**

Balance is water

**SECTION 4: FIRST-AID MEASURES**

IN CASE OF EYE CONTACT	Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.
IN CASE OF SKIN CONTACT	Wash with soap & water for 15 minutes. If irritation persists seek medical aid.
IF SWALLOWED	Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.
IF INHALED	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
MEDICAL ATTENTION AND SPECIAL TREATMENT	Get emergency medical help.
SYMPTOMS CAUSED BY EXPOSURE	Not expected to present a significant hazard under anticipated conditions of normal use.

## SECTION 5: FIREFIGHTING MEASURES

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL	Vapour/air mixtures are explosive.
FLAMMABLE PROPERTIES	Flammable
HAZARDOUS COMBUSTION PRODUCTS	Under fire conditions, hazardous fumes will be present.
SUITABLE & UNSUITABLE EXTINGUISHING MEDIA	<b>Small fire:</b> dry chemical, CO <sub>2</sub> or water spray. <b>Large fire:</b> dry chemical, CO <sub>2</sub> , alcohol resistant foam or water spray. Do not get water inside containers.
PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
METHODS & MATERIAL FOR CONTAINMENT	On land, sweep or shovel into suitable containers.
CLEANUP PROCEDURE	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.
REFERENCE TO OTHER SECTIONS	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

## SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling. Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.
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**CONDITIONS FOR SAFE STORAGE**

Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

**STORAGE CONDITIONS**

Store in original container, tightly sealed, protected from direct sunlight and moisture.

**SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION**

Chemical Name: ISOPROPYL ALCOHOL CAS #: 67-63-0

	Country	Limit value-8 hours		Limit value-Short Term		IDLH	REL	Advisory	Notes
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>				
OSHA	USA	400	980	N/L	N/L	N/L	N/L	N/A	N/A
ACGIH	USA	200	400	N/L	N/L	N/L	N/L	N/A	A4 (not classifiable as a human carcinogen)
NIOSH	USA	400	980	500	1225	2000 ppm*	400ppm (980mg/m <sup>3</sup> )	N/A	*10%LEL (See: 67630)
WEEL	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
HSIS	Australia	400	980	500	1225	N/L	N/L	N/A	N/A
HSE	UK	400	983	500	1250	N/L	N/L	N/A	N/A
GESTIS	Austria	200	500	800	2000	N/L	N/L	N/A	N/A
GESTIS	Belgium	200	500	400 (1)	1000 (1)	N/L	N/L	N/A	(1) 15 minutes average value
GESTIS	Canada - Ontario	200	N/L	400	N/L	N/L	N/L	N/A	N/A
GESTIS	Canada - Quebec	400	983	500	1230	N/L	N/L	N/A	N/A
GESTIS	Denmark	200	490	400	980	N/L	N/L	N/A	N/A
GESTIS	Finland	200	500	250 (1)	620 (1)	N/L	N/L	N/A	(1) 15 minutes average value
GESTIS	France	N/L	N/L	400	980	N/L	N/L	N/A	N/A
GESTIS	Germany (AGS)	200	500	400 (1)	1000 (1)	N/L	N/L	N/A	(1) 15 minutes average value
GESTIS	Germany (DFG)	200	500	400	1000	N/L	N/L	N/A	STV 15 minutes average value
GESTIS	Hungary	N/L	N/L	500	2000	N/L	N/L	N/A	N/A
GESTIS	Ireland	200	N/L	N/L	400 (1)	N/L	N/L	N/A	(1) 15 minutes reference period
GESTIS	Japan (MHLW)	400	N/L	N/L	N/L	N/L	N/L	N/A	N/A
GESTIS	Japan (JSOH)	400 (1)	980 (1)	N/L	N/L	N/L	N/L	N/A	(1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day
GESTIS	Latvia	N/L	350	N/L	600 (1)	N/L	N/L	N/A	(1) 15 minutes average value
GESTIS	New Zealand	400	983	500	1230	N/L	N/L	N/A	N/A

<b>GESTIS</b>	China	N/L	350	N/L	700 (1)	N/L	N/L	N/A	(1) 15 minutes average value
<b>GESTIS</b>	Poland	N/L	900	N/L	1200	N/L	N/L	N/A	N/A
<b>GESTIS</b>	Romania	81	200	203 (1)	500 (1)	N/L	N/L	N/A	(1) 15 minutes average value
<b>GESTIS</b>	Singapore	400	983	500	1230	N/L	N/L	N/A	N/A
<b>GESTIS</b>	South Korea	200	480	400	980	N/L	N/L	N/A	N/A
<b>GESTIS</b>	Spain	200	500	400	1000	N/L	N/L	N/A	N/A
<b>GESTIS</b>	Sweden	150	350	250 (1)	600 (1)	N/L	N/L	N/A	(1) 15 minutes average value
<b>GESTIS</b>	Switzerland	200	500	400	1000	N/L	N/L	N/A	N/A

N/L = Not listed ; N/A = Not Available

PELs are 8-hour TWAs = Limit value - Eight hours

Ceiling or Short-Term TWA = STEL = Limit value - Short term

#### EXPOSURE GUIDELINES

Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m<sup>3</sup>. A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C; on spraying or dispersing, however, much faster.

#### PERSONAL PROTECTIVE EQUIPMENT

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. **Skin:** Wear appropriate gloves to prevent skin exposure. **Clothing:** Wear appropriate protective clothing to minimize contact with skin. **Respirators:** Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. **Thermal Hazards:** For products representing a thermal hazard, appropriate Personal Protective Equipment should be used.

#### SPECIFIC ENGINEERING CONTROLS

Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.

#### BIOLOGICAL MONITORING

Not available

#### CONTROL BANDING

Not available

#### NOTES

The substance is irritating to the eyes and the respiratory tract. The substance may cause effects on the central nervous system, resulting in depression. Exposure far above the OEL may result in unconsciousness.

Mild irritation of the upper respiratory tract may begin at approximately 400 ppm. High concentrations may cause drowsiness, lack of coordination and deep narcosis.

Eye damage from contact with liquid is reversible and proper treatment will result in healing within a few days. Damage is usually mild to moderate conjunctivitis, seen mainly as redness of the conjunctiva.

OEL:

MAK: 200 ppm, 500 mg/m<sup>3</sup>

Peak limitation category: II(2); Pregnancy risk group: C; (DFG 2004).

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### PHYSICAL STATE

Liquid

#### DESCRIPTION

Clear, colorless liquid with a strong alcohol-like odor.

#### SOLUBILITY

Miscible in water.

#### ODOR

Characteristic odor

#### FLAMMABILITY

Flammable

<b>AUTO-IGNITION TEMPERATURE</b>	456°C, 852.8°F*	<b>BOILING POINT</b>	83°C, 181.4°F*	<b>DECOMPOSITION TEMPERATURE</b>	Not available
<b>EVAPORATION RATE</b>	2.3 (butyl acetate=1)*	<b>EXPLOSIVE LIMIT</b>	2 - 12%*	<b>FLASH POINT</b>	(18.2 - 24)°C, (64.76-75.2)°F (Closed Cup)
<b>log P (OCTANOL-WATER)</b>	0.05 (25°C)*	<b>LOWER FLAMMABLE/EXPLOSIVE LIMIT(S)</b>	Not available	<b>MELTING/FREEZING POINT</b>	-90°C, -130°F*
<b>PARTICLE CHARACTERISTICS</b>	40 - 200ppm*	<b>OXIDIZING PROPERTY</b>	Not available	<b>pH</b>	6.0 - 8.0
<b>RELATIVE DENSITY (WATER = 1)</b>	0.79*	<b>SPECIFIC GRAVITY (20°C)</b>	0.872 - 0.883 (20°C)	<b>UPPER FLAMMABLE/EXPLOSIVE LIMIT(S)</b>	Not available
<b>VAPOR DENSITY (AIR = 1)</b>	2.1*	<b>VAPOR PRESSURE (20°C)*</b>	4.4 kPa (20°C)*	<b>VISCOSITY</b>	Not available

The physical data presented above are typical values and should not be construed as a specification.

**NOTES** \*pure IPA

## SECTION 10: STABILITY AND REACTIVITY

<b>REACTIVITY</b>	Not established
<b>CHEMICAL STABILITY</b>	Stable under recommended storage conditions
<b>INCOMPATIBLE MATERIALS</b>	Strong oxidants. Strong acids. Aluminium if > 50°C. Most plastics. Neoprene rubber.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur
<b>HAZARDOUS POLYMERIZATION</b>	Will not occur
<b>POSSIBILITY OF HAZARDOUS REACTION</b>	Not established
<b>CONDITIONS TO AVOID</b>	Moisture, sunlight and extreme temperatures. Heat. Sources of ignition.

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>ACUTE TOXICITY</b>	<p>ISOPROPYL ALCOHOL (pure):            Oral: Rat: LD50: (mg/kg): 4396            Dermal: Rabbit LD50: (mg/kg): 12 800            Inhalation: Rat: LC50: (mg/L/4hr): 72.6</p> <p>Calculated ATE:            Oral: Rat: LD50: (mg/kg): 6793            Dermal: Rabbit LD50: (mg/kg): 19 781            Inhalation: Rat: LC50: (mg/L/4hr): 112</p>
<b>SKIN CORROSION/IRRITATION</b>	<p>Causes mild skin irritation: pH 6.0 - 8.0            Skin irritation test. Result: Mild irritation. Species: Rabbit</p>

**SERIOUS EYE DAMAGE/EYE IRRITATION**

Causes serious eye irritation: pH 6.0 - 8.0  
 Eye irritancy test. Result: Moderate to severe irritation. Species: Rabbit

**RESPIRATORY SENSITIZATION**

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

**SKIN SENSITIZATION**

Based on available data, the classification criteria are not met.  
 Guinea pig Buehler test. Result: No sensitization noted.

**GERM CELL MUTAGENICITY**

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

**CARCINOGENICITY**

**OSHA** ISOPROPYL ALCOHOL (Alcohol 99%) is not listed.

**NTP** ISOPROPYL ALCOHOL (Alcohol 99%) is not listed.

**IARC** ISOPROPYL ALCOHOL (Alcohol 99%) is listed in group 3 (not classifiable as to its carcinogenicity to humans).

**California Proposition 65** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

**ADDITIONAL CARCINOGENICITY INFORMATION**

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

**REPRODUCTIVE TOXICITY**

Causes foetotoxicity in animals at doses which are maternally toxic. Does not impair fertility. Based on available data, the classification criteria are not met.

**SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE**

The substance may cause effects on the central nervous system.

**SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE**

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

**ASPIRATION HAZARDS**

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

**SIGNS AND SYMPTOMS OF EXPOSURE**
**ROUTES OF EXPOSURE:**

Oral, Dermal, Inhalation, Eye contact

**EARLY ONSET SYMPTOMS RELATED TO EXPOSURE:**

Not available

**DELAYED HEALTH EFFECT FROM EXPOSURE:**

Not available

Isopropyl alcohol is considered to be more toxic than ethyl alcohol and the symptoms of intoxication appear to be similar, except that isopropyl alcohol has no initial euphoric action and gastritis, haemorrhage, pain, nausea, and vomiting are more prominent. The lethal oral dose is reported to be about 120 to 240 mL in adults; however, toxic symptoms may be produced by as little as 20 mL. Ketoacidosis and ketonuria commonly occur due to the presence of the major metabolite, acetone, in the circulation.

Possible direct toxic effects on the brain, thiamine deficiency, Wernicke-Korsakoff syndrome; pancreatitis, cardiovascular disease, tremor, agitation, feelings of dread, nausea, vomiting, sweating, hallucinations, seizures, delirium tremens, fetal alcohol syndrome.

The substance is irritating to the eyes and the respiratory tract. The substance may cause effects on the central nervous system, resulting in depression. Exposure far above the OEL may result in unconsciousness.

**POTENTIAL HEALTH EFFECTS**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation. Cough. Dizziness. Drowsiness. Headache. Sore throat. Mild irritation of the upper respiratory tract may begin at approximately 400 ppm. High concentrations may cause drowsiness, lack of coordination and deep narcosis.

**Ingestion** May be harmful if swallowed. Abdominal pain. Laboured breathing. Nausea. Unconsciousness. Vomiting. Death.

**Skin** May be harmful if absorbed through skin. Causes skin irritation. Application of isopropyl alcohol to the skin may cause dryness and irritation; suitable precautions should be taken to prevent absorption through the skin, particularly in infants.

**Eyes**

Severe eye irritant. Vapours can irritate eyes beginning at approximately 400 ppm. Eye damage from contact with liquid is reversible and proper treatment will result in healing within a few days. Damage is usually mild to moderate conjunctivitis, seen mainly as redness of the conjunctiva.

**SECTION 12: ECOLOGICAL INFORMATION**
**ECOTOXICITY**

ISOPROPYL ALCOHOL (pure):  
 EC50: 48 Hr: Crustacea: (mg/L): 13 299  
 LC50: 96 Hr: Fish: (mg/L): 61 200  
 IC50: 72 Hr: Algae: (mg/L): > 1000

Calculated:  
 EC50: 48 Hr: Crustacea: (mg/L): 94 576  
 LC50: 96 Hr: Fish: (mg/L): 20 552  
 IC50: 72 Hr: Algae: (mg/L): 1545

**PERSISTENCE AND DEGRADABILITY**

Readily biodegradable meeting the 10 day window criterion.

**BIOACCUMULATIVE POTENTIAL**

Not likely to bioaccumulate: LogPow: 0.05 (25°C)

**MOBILITY IN SOIL**

Will likely be mobile in the environment due to its water solubility and may contaminate groundwater. Oxidises rapidly by photo-chemical reactions in air.

ISOPROPYL ALCOHOL:  
 Water Solubility: 1.00E+06 mg/L (25°C)  
 Henry's Law Constant: 8.10E-06 atm-m<sup>3</sup>/mole (25°C)

**OTHER ADVERSE EFFECTS**

Not available

This product is not intended to be released into the environment

**SECTION 13: DISPOSAL CONSIDERATIONS**
**DISPOSAL METHODS**

Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.

**SECTION 14: TRANSPORT INFORMATION**
**UN PROPER SHIPPING NAME**

ISOPROPYL ALCOHOL

**UN NUMBER**

1219

**CLASS**

3

**PACKING GROUP**

II

**AUSTRALIA**
**HAZCHEM**

2YE

**EU**
**TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE**

Not Listed

**ENVIRONMENTAL HAZARDS**

Not available

**SPECIAL SHIPPING INFORMATION**

Not applicable



**SECTION 15: REGULATORY INFORMATION**
**UNITED STATES REGULATIONS**

Chemical Name & CAS	CERCLA 40 CFR Part 302.4	SARA (Title III) 40 CFR Part 372.65	EPA 40 CFR Part 355		Right-to-know			California Prop 65
			Appendix A	Appendix B	Pennsylvania	New Jersey	Massachusetts	
ISOPROPYL ALCOHOL, 67-63-0	N/L	X	N/L	N/L	X	X	X	N/L

N/L = Not Listed; X = Listed

**AUSTRALIAN REGULATIONS**

Chemical Name & CAS	Poisons and Therapeutic Goods	Therapeutic Goods Act	Code of Practices - Illicit Drug Precursors	Poisons Standard	Work Health and Safety Regulations	Inventory of Industrial Chemicals
ISOPROPYL ALCOHOL, 67-63-0	N/L	N/L	N/L	N/L	N/L	Listed

N/L = Not Listed

**EU REGULATIONS**

Chemical Name & CAS	REACH ANNEX XVII	REACH ANNEX XIV	EC 1005/2009	EC 850/2004	EC 1107/2009	PIC - Prior Informed Consent Regulation	EC 2012/18
ISOPROPYL ALCOHOL, 67-63-0	N/L	N/L	N/L	N/L	N/L	N/L	N/L

N/L = Not Listed; X = Listed

Any EU regulation not listed above is not applicable to this product.

SUBJECT TO INTERNATIONAL AGREEMENT

Not applicable

**SECTION 16: OTHER INFORMATION**
**REFERENCES**

Available upon request

**ABBREVIATIONS AND ACRONYMS**

**ACGIH** - American Conference of Governmental Industrial Hygienists; **AIHA WEEL** - American Industrial Hygiene Association Workplace Environment Exposure Levels; **CAESAR** - Computer Assisted Evaluation of industrial chemical Substances According to Regulations; **CAS** - Chemical Abstract Service; **CERCLA** - Comprehensive Environmental Response, Compensation, and Liability Act; **EC50** - Effective Concentration, 50%; **EPA** - Environmental Protection Agency; **GHS** - Global Harmonized System; **HMIS** - Hazardous Materials Information System; **HSE** - Health and Safety Executive; **HSIS** - Hazardous Substances Information System; **IARC** - International Agency for Research on Cancer; **IDLH** - Immediately Dangerous to Life or Health; **IRFMN** - Ready Biodegradability Model; **ISS** - Istituto Superiore Sanità; **LC50** - Lethal Concentration, 50%; **LD50** - Lethal Dose, 50%; **MSHA** - Mine Safety and Health Administration; **NIOSH** - National Institute for Occupational Safety and Health; **NTP** - National Toxicology Program; **OSHA PEL** - Occupational Safety & Health Administration Permissible Exposure Limits; **QSAR** - Quantitative Structure-activity relationship; **REL** - Recommended Exposure Limit; **SARA** - Superfund Amendments and Reauthorization Act; **STEL** - Short Term Exposure Limit; **TLV** - Threshold Limit Value; **TWA** - Time Weighted Average; **WHMIS** - Workplace Hazardous Materials Information System

**LAST REVISION**

03/2023

**SUPERSEDES**

04/2020

For a list of changes to the SDS since the last version, please communicate with MEDISCA at [www.medisca.com](http://www.medisca.com)

**DISCLAIMER**

This document was created in accordance with OSHA, Safe Work Australia and WHMIS regulations. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MEDISCA® shall not be held liable for any damage resulting from handling or from contact with the above product. Recipients of the product must take responsibility for observing existing laws and regulations.

**SUPPLEMENTARY INFORMATION**

For all country specific requirements not outlined on this Safety Data Sheet, please request Supplementary Page to this Safety Data Sheet.