

73722 73724 - Ionomycin

Revision Date 12-Apr-2024 Revision Number 2.1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Ionomycin

Other means of identification

Catalog Number 73722 73724

UN/ID no. UN1170

Document Number DX21240

Synonym SQ 23377;

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory chemical

Details of the supplier of the safety data sheet

Manufacturer/Supplier

STEMCELL Technologies Canada Inc. Suite 500 - 1618 Station Street Vancouver, British Columbia V6A 1B6 Canada

Emergency telephone number

Emergency Telephone 1-800-667-0322

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity	Category 1A
Flammable liquids	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements



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Danger

Hazard statements

May cause cancer

Highly flammable liquid and vapor



Appearance No information available

Physical state Liquid

Odor No data available

Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/protective clothing/eye protection/face protection

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use explosion-proof electrical/ ventilating / lighting/ .? / equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Precautionary statements - Response

IF exposed or concerned: Get medical advice/attention

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Information

May be harmful if inhaled

Toxic to aquatic life with long lasting effects

Toxic to aquatic life

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)



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100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor) 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

<u>Mixture</u>

Synonym SQ 23377;.

Chemical name	CAS No.	Weight-%
Ethyl Alcohol	64-17-5	99
Ionomycin free acid	56092-81-0	1

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s)

involved, take precautions to protect themselves and prevent spread of contamination. Use

personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed



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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the

chemical

Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge Yes.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See

section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the

product must be grounded. Do not touch or walk through spilled material.

Other Information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage

if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor

suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other

non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert



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absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Store in accordance with information listed on the Product Information Sheet (PIS). Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl Alcohol	STEL: 1000 ppm	TWA: 1000 ppm	IDLH: 3300 ppm
64-17-5		TWA: 1900 mg/m ³	TWA: 1000 ppm
		(vacated) TWA: 1000 ppm	TWA: 1900 mg/m ³
		(vacated) TWA: 1900 mg/m ³	-

Appropriate engineering controls

Engineering controls Showers

Eyewash stations



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Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Impervious gloves. Wear suitable gloves.

Skin and body protection Long sleeved clothing. Chemical resistant apron. Antistatic boots. Wear suitable protective

clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Contaminated work clothing should not be allowed out of the workplace. Regular cleaning

of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

Appearance
Color
Odor
Odor
Odor threshold
No information available
No data available
No data available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

No data available None known

Melting point / freezing point -114.5 °C / -174.1 °F

Boiling point / boiling range 78 °C / 172.4 °F Flash point 13 °C / 55 °F

Evaporation rate

No data available

None known

Flammability (solid, gas)

No data available

None known

None known

None known

Upper flammability limit: No data available Lower flammability limit: No data available

Vapor pressure 59 hPa (44.3 mm Hg) [20 °C (68 °F)]

Vapor density

No data available

None known

None known

None known

Water solubility 1,000 g/L [20 °C (68 °F)]

Solubility in other solventsNo data availableNone knownPartition coefficientNo data availableNone known

Autoignition temperature No data available



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Decomposition temperatureNo data availableNone knownKinematic viscosityNo data availableNone known

Dynamic viscosity1.2 mPas [20 °C (68 °F)]Explosive propertiesNo data availableOxidizing propertiesNo information available

Other Information

Softening point No information available

Molecular weight709.0Molecular formulaC41H72O9

VOC Content (%) No information available

Liquid Density 0.79 g/cm3 (6.59255 lbs/gal) [20 °C (68 °F)]

Bulk density No information available

10. STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under recommended transport or storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products Carbon dioxide (CO2). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.



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Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 50,000.00 mg/kg
ATEmix (inhalation-dust/mist) 50.100 mg/l

Unknown acute toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Product Information

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl Alcohol	= 7060 mg/kg (Rat)	-	= 116.9 mg/L (Rat) 4 h
64-17-5			= 133.8 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritationNo information available.

Product Information

Serious eye damage/eye irritation No information available.

Product Information

Respiratory or skin sensitization No information available.

Product Information

Germ cell mutagenicity No information available.

Product Information

Carcinogenicity Classification based on data available for ingredients.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethyl Alcohol	A3	Group 1	Known	X
64-17-5				

Reproductive toxicity No information available.

Product Information

STOT - single exposure No information available.

Product Information



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STOT - repeated exposure No information available.

Product Information

Target organ effects liver, Respiratory system, Eyes, Skin, Central nervous system, blood, Reproductive System.

Aspiration hazard No information available.

RTECS # Ethyl Alcohol: KQ6300000 Ionomycin: NO0600000

12. ECOLOGICAL INFORMATION

Ecotoxicity

	Product Information				
Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea	
			microorganisms		
Ethyl Alcohol	-	LC50: 12.0 - 16.0mL/L	-	LC50: 9268 - 14221mg/L	
64-17-5		(96h, Oncorhynchus		(48h, Daphnia magna)	
		mykiss)		EC50: =2mg/L (48h,	
		LC50: >100mg/L (96h,		Daphnia magna)	
		Pimephales promelas)			
		LC50: 13400 -			
		15100mg/L (96h,			
		Pimephales promelas)			

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Component Information

Omponent information			
Chemical name	Partition coefficient		
Ethyl Alcohol	-0.35		
64-17-5			

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused

products

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers page containers.

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture of weld



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US EPA Waste Number D001.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as

a hazardous waste.

Chemical name California Hazardous Waste Status	
Ethyl Alcohol	Toxic
64-17-5	Ignitable

14. TRANSPORT INFORMATION

Note: Transport in accordance with local, state, and federal regulations. When sold in quantities

of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging

does not have to be labeled as Dangerous Goods/Excepted Quantity.

DOT

UN/ID no. UN1170

Proper shipping name Ethanol solutions

Hazard class 3 - FLAMMABLE LIQUID

Packing Group

TDG Not regulated

MEX Not regulated

ICAO (air) Not regulated

IATA

UN Number UN1170

UN proper shipping name Ethanol solution

Transport hazard class(es) 3 - FLAMMABLE LIQUID

Packing Group

<u>IMDG</u>

ADN

UN Number UN1170

UN proper shipping name ETHANOLSOLUTION (ETHYLALCOHOLSOLUTION)

Transport hazard class(es) 3 - FLAMMABLE LIQUID

Packing Group

RIDNot regulatedADRNot regulated

Not regulated



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15. REGULATORY INFORMATION			
International Inventories			
TSCA	Does not comply		
DSL/NDSL	Does not comply		
EINECS/ELINCS	Does not comply		
ENCS	Does not comply		
IECSC	Complies		
KECL	Does not comply		
PICCS	Does not comply		
AICS	Does not comply		

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.



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US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65	
Ethyl Alcohol - 64-17-5	Carcinogen	
	Developmental	

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethyl Alcohol	X	X	X
64-17-5			

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Prepared By, Quality Control. STEMCELL Technologies Canada Inc.

Revision Date 12-Apr-2024

Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

End of Safety Data Sheet