

Safety Data Sheets (SDSs)

Client	Changzhou Anyida Power Technology Co.,Ltd				
Add. of Client	No.60, Tianshan Roa	d,Xinbei District ,Changzhou ,JiangSu			
Description	Lithium Manganese	Lithium Manganese Dioxide Button Battery			
Model /Type	CR2450				
Trade Name	N/A				
Manufacturer	Changzhou Anyida	Power Technology Co.,Ltd			
Add. of Manufacturer	No.60, Tianshan Roa	d,Xinbei District ,Changzhou ,JiangSu			
Nominal Voltage	3.0V, 600mAh	RRCS Spa			
Weight of Lithium in grams	0.18g	A Se			
Date of Receipt	2021-04-07	Z PL W WDD CO			
Laboratory	Dangguan ZRIK Tes	ting Technology Co., Ltd.			
Laboratory					
Address		yuyuan Mansion, No.18, Industrial West Road, tech Industrial Development Zone, Dongguan,			
Approved Signatory	Maggie.Gao	Maggie Gao Ailis Ma Lahn Peng			
Inspected by	Ailis.Ma	Ailis Ma			
Censored by	Lahm Peng	Lahn Peng			

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

Product Identifier

Product name: Lithium Manganese Dioxide Button Battery

Model: CR2450

Other means of identification

Synonyms:none

Recommended use of the chemical and restrictions on use

Recommended Use: Used in portabl electronic equipments;

Uses advidsed against:

- a) Do not dismantle, open or shred batteries.
- b) Do not expose batteries to heat or fire. Avoid storage in direct sunlight.
- c) Do not short-circuit battery. Do not store batteries haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.
- d) Do not remove a battery from its original packaging until required for use.
- e) Do not subject batteries to mechanical shock.
- f) In the event of a cell leaking, do not allow the liquid to come in contact with the skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice.
- g) Observe the plus (+) and minus (-) marks on the cell, battery and equipment and ensure correct use.
- h) Do not use any cell or battery which is not designed for use with the equipment.
- i) Do not mix cells of different manufacture, capacity, size or type within a device.
- i) Battery usage by children should be supervised.
- k) Seek medical advice immediately if a cell or a battery has been swallowed.
- 1) Always purchase the battery recommended by the device manufacturer for the equipment.
- m) Keep cells and batteries clean and dry.
- n) After extended periods of storage, it may be necessary to charge and discharge the cells or batteries several times to obtain maximum performance.
- o) Use only the cell or battery in the application for which it was intended.
- p) When possible, remove the battery from the equipment when not in use.
- q) Dispose of properly.

Details of the supplier of the safety data sheet:

Supplier Name: Changzhou Anyida Power Technology Co.,Ltd Address: No.60,Tianshan Road,Xinbei District ,Changzhou ,JiangSu

Telephone number of the supplier: 0086-0519-83270474

Postcode: 213000

E-mail address: marketing@suyucell.cn

Emergency telephone number

Company Emergency Phone Number: 0086-0519-83270474

2. HAZARDS IDENTIFICATION

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Classification

Acute toxicity - Dermal	Category 3
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

GHS Label elements, including precautionary statements

Danger

Hazard statements

Toxic in contact with skin

Causes serious eye irritation

Suspected of causing cancer

Causes damage to organs through prolonged or repeated exposure



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

Wash face, hands and any exposed skin thoroughly after handling

Do not breathe dust/fume/gas/mist/vapors/spray

Do not eat, drink or smoke when using this product

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention Specific treatment (see supplemental first aid instructions on this label)

Eyes

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

Skin

IF ON SKIN: Wash with plenty of water and soap

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Call a POISON CENTER or doctor if you feel unwell

Take off immediately all contaminated clothing and wash it before reuse

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

harmful if swallowed. Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterixation: Mixtures

Description:

Product: Consisting of the following components.

Common Chemical Name	Concentration	CAS
Common Chemical Name	(%)	Number
Lithium	2.5	7439-93-2
Propylene Carbonate	4	108-32-7
Manganese Dioxide	40	1313-13-9
Stainless steel	50.5	12597-68-1
Perchloric acid, lithium salt	1	7791-03-9
Graphite	2	7782-42-5

Note: CAS number is Chemical Abstract Service Registry Number.

N/A=Not apply.

4. FIRST-AID MEASURES

First aid measures

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

Skin Contact Remove contaminated clothing and shoes. Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed

Swallowing Do not induce vomiting. Get medical attention.

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Most Important Symptoms/Effects

No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

CO2, dry chemical powder, water spray.

Unsuitable Extinguishing Media:No information available.

Specific Hazards Arising from the Chemical

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Carbon monoxide(CO)

Carbon dioxide

Other irritating and toxic gases.

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No

Sensitivity to Static Discharge No

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. For example: Wear self-contained respiratory protective device. Wear suitable protective clothing and eye/face protection.

Special hazards arising from the substance or mixture:

Battery may burst and release hazardus decomposition products when exposed to a fire situation. Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature(>150°C), When damaged or abused(e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes.

Refer to section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas.

Environmental precautions

Environmental Precautions Refer to protective measures listed in Sections 7 and 8.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Methods and material for containment and cleaning up

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Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning up Use personal protective equipment. Dam up. Cover liquid spill with sand, earth or other Non combustible absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Wash thoroughly after handling. Use this material with adequate ventilation.

The product is not explosive.

Conditions for safe storage, including any incompatibilities

If the 3V Lithium Manganese Dioxide Button Cell is subject to storage for such a long term as more than 3 months, it is recommended to recharge the 3V Lithium Manganese Dioxide Button Cell periodically.

3 months: -10°C~+40°C, 45 to 85%RH

And recommended at 0°C~+35°C for long period storage.

Do not storage 3V Lithium Manganese Dioxide Button Cell haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.

Keep out of reach of children.

Do not expose 3V Lithium Manganese Dioxide Button Cell to heat or fire. Avoid storage in direct sunlight. Do not store together with oxidizing and acidic materials.

Keep ignition sources away- Do not smoke.

Store in cool, dry and well-ventilated place.

Incompatible Products None known.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

None

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962(11th Cir., 1992).

Appropriate engineering controls

Engineering Measures Showers

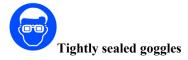
Evewash stations

Ventilation systems

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/Face Protection:



Body protection:

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Protective work clothing.

Skin protection:



Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: button				
Physical	Color: silver			
State	Odour: Odourless			
	Odor Threshold: No information a	vailable		
Change in c	ondition:			
pH, with inc	lication of the concentration	Not determined.		
Melting poin	nt/freezing point	Not determined.		
Initial boilin	ng point and Boiling range:	Not determined.		
Flash Point		Not determined.		
Evaporation rate		Not determined.		
Flammability (solid, gas)		Not determined.		
Upper/lower flammability or explosive limits		Not determined.		
Vapor Press	ure:	Not determined.		
Vapor Dens	ity:	Not determined.		
relative density:		Not determined.		
Solubility in	Water:	Not determined.		
Solubility in	other solvents	Not determined.		
n-octanol/w	ater partition coefficient	Not determined.		

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Auto-ignition temperature	Product is not self-igniting.
Decomposition temperature	Not determined.
Odout threshold	Not determined.
Evaporation rate	Not determined.
Viscosity	Not determined.
Other Information	:
Voltage	3.0V
Electric capacity	210mAh
Lithium content	0.063g

10. STABILITY AND REACTIVITY

Reactivity: Stable under recommended storage and handling conditions (see section 7, Handling and storage).

Chemical stability: Stable under normal conditions of use, storage and transport.

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

Possibility of Hazardous Reactions: None under normal processing.

<u>Hazardous Polymerization:</u> Hazardous polymerization does not occur.

Conditions to avoid: Strong heating, fire, Incompatible materials.

Incompatible materials: Strong oxidizing agents. Strong acids.Base metals.

Hazardous Decomposition Products: Carbon oxides, Other irritating and toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute toxiciy: No data available.

LD/LC50 values relevant for classification:

Not available.

Skin corrosion/irritation: No irritant effect.

Serious eye damage/irritation: Cause serious eye irritation.

Respiratory or skin sensitization: No sensitizing effects known.

Specific target organ system toxicity: No information available.

CMR effects(carcinogenity, mutagenicity and toxicity for reproduction): No information available.

12. Ecological Information

Toxicity:

Acquatic toxicity:

No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

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Results of PBT and vPvB assessment

PBT: Not applicable. vPvB: Not applicable.

Other adverse effects: No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation: Must not be disposed together with household garbage.

Do not allow product to reach sewage system

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

Land transport

ADR/RID class: Not regulated. UN-Number: UN3090 or UN3091.

Maritime transport

IMDG Class: Class 9.

UN Number: UN3090 or UN3091.

Marine pollutant: No

Air transport

ICAO/IATA Class: Class 9

UN/ID Number: UN3090 or UN3091 Environmental hazards: Not applicable. Special precautions for user: Not applicable.

Transport/Additional information: Not restricted goods according to the above specifications.

The 3V Lithium Manganese Dioxide Button Cell had been tested according to the requirements of the UN manual of tests and Criteria, Part III, subsection 38.3;

The lithium ion batteries according to Section II of PACKING INSTRUCTION 968, or Section II of PACKING INSTRUCTION 969~970 of the Dangerous Goods regulations 59th Edition may be transported. The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking. The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

Meets requirements of Special Provision 188 of IMDG(38-16) to be transported as non-dangerous goods Meets the requirements of 49CFR173.185 to be transported as non-dangerous goods for road, rail, air, and vessel (Effective August 6, 2014 per HM224F)

The package must be handled with care and that a flammability hazard exists if the package is damaged;

15. REGULATORY INFORMATION

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

EU Regulation:

Authorisations: No information available. **Restrictions on use:** No information available.

Regulatory information

CAS No.	EU	US	Japan	Canada	Austrlia	Korea	China
	(EINECS)	(TSCA)	(ENCS)	(DSL/	(AICS)	(ECL)	(IECSC)
				NDSL)			
7439-93-2	Listed	Listed	Listed	DSL	Listed	Listed	Listed
108-32-7	Listed	Listed	Listed	DSL	Listed	Listed	Listed
1313-13-9	Listed	Listed	Listed	DSL	Listed	Listed	Listed
12597-68-1	Listed	Listed	Listed	DSL	Listed	Listed	Listed
7791-03-9	Listed	Listed	Listed	DSL	Listed	Listed	Listed
7782-42-5	Listed	Listed	Listed	DSL	Listed	Listed	Listed

Chemical safety assessment A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

R20/22: Harmful by inhalation and if swallowed.

R36: Irritating to eyes.

H302: Harmful if swallowed.

H332: Harmful if inhaled.

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SECTION 1. IDENTIFICATION

Product name : PURELL® Waterless Surgical Scrub Gel

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500

Akron, Ohio 44311

Telephone : 1 (330) 255-6000

Emergency telephone

number

: 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use

Recommended use : Hand Sanitizer

Restrictions on use : This is a personal care or cosmetic product that is safe for

consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information

provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

Eye irritation : Category 2A

GHS label elements

Hazard pictograms





Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.



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H319 Causes serious eye irritation.

Precautionary statements : **Prevention**:

P210 Keep away from heat/sparks/open flames/hot surfaces. -

No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/

equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

P370 + P378 In case of fire: Use dry sand, dry chemical or

alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (%)
Ethyl Alcohol	64-17-5	>= 50 - < 70
Isopropyl Alcohol	67-63-0	>= 1 - < 5
Glycerin	56-81-5	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical

advice immediately.

When symptoms persist or in all cases of doubt seek medical

advice.

If inhaled : If inhaled, remove to fresh air.

If symptoms persist, call a physician.

In case of skin contact : Wash with water and soap as a precaution.

Get medical attention if irritation develops and persists.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water

for at least 15 minutes.

If easy to do, remove contact lens, if worn.



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Seek medical advice.

If swallowed, DO NOT induce vomiting.

Rinse mouth with water. Obtain medical attention.

Most important symptoms and effects, both acute and

delayed

: Causes serious eye irritation.

Protection of first-aiders : First Aid responders should pay attention to self-protection

and use the recommended protective clothing

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

Unsuitable extinguishing

media

: High volume water jet

Specific hazards during

firefighting

: Do not use a solid water stream as it may scatter and spread

fire.

Cool closed containers exposed to fire with water spray.

Flash back possible over considerable distance.

May form explosive mixtures in air.

Exposure to decomposition products may be a hazard to

health.

Carbon oxides

Hazardous combustion

products

Carbon oxides

Specific extinguishing

methods

: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment. Use water spray to cool unopened containers.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Special protective equipment

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Keep people away from and upwind of spill/leak.

Material can create slippery conditions.



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Environmental precautions : Discharge into the environment must be avoided.

Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water.

Local authorities should be advised if significant spillages

cannot be contained.

Methods and materials for containment and cleaning up

: Non-sparking tools should be used. Soak up with inert absorbent material.

Suppress (knock down) gases/vapours/mists with a water

spray jet.

Keep in suitable, closed containers for disposal.

Clean contaminated floors and objects thoroughly while

observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : For personal protection see section 8.

Keep away from heat and flame. Use with local exhaust ventilation.

Avoid contact with eyes.

Conditions for safe storage : Take measures to prevent the build up of electrostatic charge.

Keep in properly labelled containers.

Keep containers tightly closed in a dry, cool and well-

ventilated place.

Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethyl Alcohol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		STEL	1,000 ppm	ACGIH
Isopropyl Alcohol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1
Glycerin	56-81-5	TWA (mist, respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (mist, total dust)	15 mg/m3	OSHA Z-1



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Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio n	Basis
Isopropyl Alcohol	67-63-0	Acetone	Urine	End of shift at end of workwee k	40 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally

required.

Hand protection

Remarks : No special protective equipment required.

Eye protection : Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection : No special measures necessary provided product is used

correctly.

Protective measures : Choose body protection in relation to its type, to the

concentration and amount of dangerous substances, and to

the specific work-place.

Ensure that eye flushing systems and safety showers are

located close to the working place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice.

Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : gel

Colour : colourless, clear

Odour : alcohol-like

Odour Threshold : No data available

pH : 2.7 - 4.0, (20 °C)

Melting point/freezing point : No data available

Initial boiling point and boiling

range

: 74 °C

Flash point : 25.60 °C

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable



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Result Liquids:

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Density : 0.8740 g/cm3

Solubility(ies)

Water solubility : soluble

Partition coefficient: n-

octanol/water

: Not applicable

Auto-ignition temperature : No data available

Thermal decomposition : The substance or mixture is not classified self-reactive.

Viscosity

Viscosity, kinematic : 175 - 1750 mm2/s (20 °C)

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous

reactions

: Vapours may form explosive mixture with air.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : Strong oxidizing agents

Hazardous decomposition

products

: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation Eye contact Skin contact



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Acute toxicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 124.7 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Isopropyl Alcohol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 72.6 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Glycerin:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Ethyl Alcohol:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Isopropyl Alcohol:

Species: Rabbit

Result: No skin irritation

Glycerin:

Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Ethyl Alcohol:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Method: OECD Test Guideline 405

Isopropyl Alcohol:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Glycerin:

Result: No eye irritation



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Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information. Respiratory sensitisation: Not classified based on available information.

Components: Ethyl Alcohol:

Test Type: Local lymph node assay (LLNA)

Exposure routes: Skin contact

Species: Mouse Result: negative

Isopropyl Alcohol:

Test Type: Buehler Test Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: negative

Germ cell mutagenicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test

Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)

Test species: Mouse Application Route: Ingestion

Result: negative

Isopropyl Alcohol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay)
Test species: Mouse

Application Route: Intraperitoneal injection

Result: negative

Glycerin:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Isopropyl Alcohol:

Species: Rat

Application Route: inhalation (vapour)

Exposure time: 104 weeks



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Method: OECD Test Guideline 451

Result: negative

Glycerin: Species: Rat

Application Route: Ingestion Exposure time: 2 Years

Result: negative

IARC No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHANo component of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by OSHA.

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study

Species: Mouse

Application Route: Ingestion

Method: OECD Test Guideline 416

Result: negative

Isopropyl Alcohol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Effects on foetal : Test Type: Embryo-foetal development

development Species: Rat

Application Route: Ingestion

Result: negative

Glycerin:

Effects on fertility : Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Effects on foetal development

Test Type: Embryo-foetal development

Species: Rabbit

Application Route: Ingestion

Result: negative



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STOT - single exposure

Not classified based on available information.

Components:

Isopropyl Alcohol:

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Ethyl Alcohol:

Species: Rat

NOAEL: 2,400 mg/kg Application Route: Ingestion

Exposure time: 2 y

Isopropyl Alcohol:

Species: Rat NOAEL: 5000 ppm

Application Route: inhalation (vapour)

Exposure time: 104 w

Method: OECD Test Guideline 413

Glycerin:

Species: Rat

NOAEL: 167 mg/m3 LOAEL: 660 mg/m3

Application Route: inhalation (dust/mist/fume)

Exposure time: 13 w Symptoms: Local irritation

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Ethyl Alcohol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): > 1,000 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other

aquatic invertebrates

: NOEC (Daphnia magna (Water flea)): 9.6 mg/l

Exposure time: 9 d



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(Chronic toxicity)

Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 32.1 mg/l

Exposure time: 0.25 h

Isopropyl Alcohol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 24 h

Toxicity to bacteria : EC50 (Pseudomonas putida): > 1,050 mg/l

Exposure time: 16 h

Glycerin:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 54,000 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 1,955 mg/l

Exposure time: 48 h

Toxicity to bacteria : NOEC (Pseudomonas putida): > 10,000 mg/l

Exposure time: 16 h

Persistence and degradability

Components:

Ethyl Alcohol:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 84 % Exposure time: 20 d

Isopropyl Alcohol:

Biodegradability : Result: rapidly degradable

Glycerin:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 94 % Exposure time: 1 d

Bioaccumulative potential

Components:

Ethyl Alcohol:

Partition coefficient: n-

: log Pow: -0.35

octanol/water

Isopropyl Alcohol:

Partition coefficient: n-

: log Pow: 0.05

octanol/water

Glycerin:

Partition coefficient: n-

octanol/water

: log Pow: -1.76



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Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of

Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a

Class I or Class II ODS as defined by the U.S. Clean Air Act

Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.

Empty containers should be taken to an approved waste

handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No. : UN 1987
Proper shipping name : Alcohols, n.o.s.

(Ethanol, Propan-2-ol)

Class : 3
Packing group : III
Packing instruction (cargo : 366

aircraft)

Packing instruction : 355

(passenger aircraft)

IMDG-Code

UN number : UN 1987

Proper shipping name : ALCOHOLS, N.O.S.

(Ethanol, Propan-2-ol)

Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-D
Marine pollutant : no

National Regulations

49 CFR

UN/ID/NA number : UN 1987
Proper shipping name : Alcohols, n.o.s.



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(Ethanol, Propan-2-ol)

Class : 3
Packing group : III
ERG Code : 127
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard

Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

Isopropyl Alcohol 67-63-0 3.3892 %

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI

Intermediate or Final VOC's (40 CFR 60.489):

 Ethyl Alcohol
 64-17-5
 64.912 %

 Isopropyl Alcohol
 67-63-0
 3.3892 %

 Glycerin
 56-81-5
 1 %

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

Ethyl Alcohol	64-17-5	50 - 70 %
Isopropyl Alcohol	67-63-0	1 - 5 %
Glycerin	56-81-5	1 - 5 %

Pennsylvania Right To Know

Ethyl Alcohol	64-17-5	50 - 70 %
Water (Aqua)	7732-18-5	20 - 30 %



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Isopropyl Al	lcohol	67-63-0	1 - 5 %
Glycerin		56-81-5	1 - 5 %
New Jersey Right To Know	ı		
Ethyl Alcoh	ol	64-17-5	50 - 70 %
Water (Aqu	a)	7732-18-5	20 - 30 %
Isopropyl A	lcohol	67-63-0	1 - 5 %
Diisopropyl	Sebacate	7491-02-3	1 - 5 %
Glycerin		56-81-5	1 - 5 %
Isopropyl M	yristate	110-27-0	1 - 5 %

California Prop 65 This product does not contain any chemicals known to State

of California to cause cancer, birth defects, or any other

reproductive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

AICS : On the inventory, or in compliance with the inventory

DSL : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

ISHL : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)



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SECTION 16. OTHER INFORMATION

Further information

NFPA: Flammability Health Instability Special hazard.

HMIS III:

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High 4 = Extreme, * = Chronic

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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.