MEDICAL CHEMICAL CORPORATION
SINCE 1954

SDS for Medizime Detergent

Catalog # 3304LF

Creation date: 05-08-15 **Revision date: 04-21-21** **Revision number: 1.2**

Section I - Product Identification

Product: A low foaming aqueous solution of isopropanol, nonionic detergent, amylase, subtilisin and various salts. The solution is buffered to a pH of 6.3 with sodium citrate and sodium borate.

Intended Uses: Intended to be used for cleaning medical instruments before disinfection.

Uses advised against: For professional use only. Not intended for consumer use.

Manufacturer Identification

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Emergency Telephone Number

CHEMTREC Emergency Response Telephone Number: (800)424-9300. Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

Section II - Hazard Identification

This item is considered hazardous by OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquid: Category 3 (H226). Flammable liquid and vapor.
Eye damage/eye Irritation: Category 2B (H320). Causes eye irritation.
Acute toxicity (Oral): Category 4 (H302). Harmful if swallowed.
Acute toxicity (Inhalation): Category 5 (H333). May be harmful if inhaled.
Acute toxicity (Dermal): Category 2 (H315). Causes skin irritation.
Specific target organ toxicity, single exposure: Category 3 (H335). May cause respiratory irritation

Signal word: Warning.

Hazard statements

According to the harmonized classification and labeling recommended by OSHA and the EU, this substance is a flammable liquid and vapor, causes eye irritation and may be harmful if inhaled or swallowed.

Precautionary statements

P210 Keep away from heat, sparks, open flames and 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 precautions against static discharge.
P280 Wear protective clothes and eye protection.

Safety Ratings

Health: Hazardous *Flammability*: Flammable *Reactivity*: Stable *Contact*: Slight
Recommended safety equipment: safety goggles, lab coat and proper gloves

Storage: Keep cool, away from sources of ignition in a well ventilated area.

NFPA Ratings

Health = 2 Flammability = 2 Reactivity = 0

Potential Health Effects

The toxicology of this compound has not been completely examined. It is presumed that the toxicity of this item is similar to that of other products containing low concentrations of isopropanol and nonionic surfactants.

Inhalation: isopropanol is absorbed through mucous membranes and will produce irritation as well as the same effects as ingestion.

Ingestion: While the toxicity of this compound is low, large doses may cause nausea, vomiting, diarrhea, etc

Skin contact: Causes skin irritation or aggravation of existing dermatitis.

Eye contact: Causes eye irritation.

Chronic Exposure: Unknown.

Aggravation of preexisting conditions: Preexisting eye, skin, and respiratory conditions may be aggravated.

Section III - Composition/Information on Components

Ingredients	CAS #	EC/List #	% w/w
isopropanol	67-63-0	200-661-7	8%
Sodium citrate	6132-04-3	6132-04-3	0.4%
Sodium borate	1303-96-4	215-540-4	0.5%
α-Amylase	9000-90-2	232-565-6	< 0.5%
Subtilisin	9014-01-1	237-752-2	< 0.2%

The solution also contains nonionic surfactant and various inorganic salts at concentrations less than 1% w/w..Also contains the dye FD&C blue # 1.

Section IV - First Aid Measures

General Advice: Contact a doctor if symptoms persist

Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.

Ingestion: Do not induce vomiting. Aspiration of isopropanol into the lungs may produce death. Get immediate medical attention even if symptoms improve.

Skin Contact: In case of skin contact, remove contaminated clothing and flush with water. Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: In case of eye contact, flush with water for at least 15 minutes and get medical attention.

Section V - Fire Fighting Measures

Fire Extinguishing Media: Alcohol foam, carbon dioxide or dry chemical. Water is ineffective against isopropanol fires but may be used to cool adjacent containers.

Flash point:54 °C (129 °F) TCC
Flammable Limits (for isopropanol) LEL 6% UEL 37%

Specific Hazards: Risk of vapor traveling to source of ignition and flashing back. Risk of exploding containers when heated. Vapor in air may form explosion risk.

Special information: Pyrolysis will release toxic carbon monoxide, formaldehyde and isopropanol.

Special protective gear and precautions: Self contained breathing apparatus and protective gear recommended.

Section VI - Accidental Release Measures

Use personal protective gear, remove all sources of ignition, absorb with a suitable absorbent and dispose. Take precautions against static ignition. Should not be released into the environment.

Section VII - Handling and Storage

P403+P233+P102; Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children.

Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
isopropanol	400 ppm	400 ppm	2000 ppm
Sodium citrate	Not listed	Not listed	Not listed
Sodium borate	5 mg/m^3 TWA	10 mg/m^3 TWA	Not listed
α-Amylase	Not listed	Not listed	Not listed
Subtilisin	0.00006 mg/m³ Ceiling	0.00006 mg/m³ Ceiling	Not listed

Legend

ACGIH: American Conference of Governmental Industrial Hygienists.
OSHA: Occupational Safety and Health Administration.
NIOSH: National Institute for Occupational Safety and Health.
IDLH: Immediately dangerous to life or health.

Ventilation System: Local exhaust such as explosion proof chemical fume hoods are recommended. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.

Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.

Skin protection: Protective gloves are recommended as part of good laboratory practice.

Eye Protection: Laboratory safety goggles or similar products are recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

Boiling Point: 91 °C (196 °F)
Vapor pressure: Unknown
Vapor Density: (air = 1): Unknown
Density: 0.988 g/ml @ 22.5 °C
Evaporation Rate (Water = 1.0): 1
Solubility: Infinitely miscible with water
Appearance and Odor: A clear blue liquid with a sweet odor. Has the characteristic odor of isopropanol.

Section X - Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Decomposition Products: Nothing unusual.

Hazardous polymerization: Will not occur.

Incompatibilities: Oxidizers.

Conditions to avoid: heat, flame and sources of ignition.

Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
isopropanol	>4700 mg/kg (Rat)	3,000 mg/kg (Rabbit)	19,000 ppm/8h (Rat)
Sodium citrate	No data	No data	No data
Sodium borate	2660 mg/kg (Rat)	>10g/kg (Rabbit)	No data
α-Amylase	> 2000 mg/kg (Rat)	No data	3.9 mg/l
Subtilisin	> 2000 mg/kg (Rat)	No data	0.8 mg/l 4 h

Cancer lists

Ingredient	*Known Carcinogenicity?*	*NTP?*	*Anticipated?*	*IARC Category*
isopropanol	No	No	no	3
Sodium citrate	No	No	no	None
Sodium borate	No	No	no	None
α-Amylase	No	No	no	None
Subtilisin	No	No	no	None

Section XII - Ecological Information

isopropanol evaporates quickly and are not expected to bioaccumulate. The material is removed from the air by dry and liquid adsorption.

Environmental Fate: Biodegradable
Soil Mobility: Unknown

Environmental Toxicity: Low

Component	Freshwater Fish	Water Flea	Freshwater algae
isopropanol	LC50 > 9640 mg/l 96 h	EC50 >7550 mg/l 48 h	EC50 >1000 mg/l 72 h
Sodium citrate	No data	No data	No data
Sodium borate	No data	No data	No data
α-Amylase	No data	No data	No data
Subtilisin	LC50 8 mg/l 96 h	EC50 0.2 mg/l 48 h	EC50 0.8mg/l 72 h

Section XIII - Disposal Considerations

Usually not restricted but local ordinances vary. Insure compliance with all local ordinances. Dispose of contents and container in accord with all applicable regulations.

Section XIV - Transportation Information

Not regulated.

Section XV - Regulatory Information

Chemical Inventory Status

Ingredient	*TSCA*	*EC*
isopropanol	Yes	Yes
Sodium citrate	Yes	Yes
Sodium borate	Yes	Yes
α-Amylase	Yes	Yes
Subtilisin	Yes	Yes

Federal and State Regulations

	SARA 302		*SARA 313*		*RCRA*	*TSCA*	
Ingredient	*RQ*	*TPQ*	*List*	*Category*	*261.33*	*8(D)*	*Ca. Prop 65*
isopropanol	No	No	Yes	No	U002	No	No
Sodium citrate	No	No	No	No	No	No	No
Sodium borate	No	No	No	No	No	No	No
α-Amylase	No	No	No	No	No	No	No
Subtilisin	No	No	No	No	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: Yes

SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No Reactivity: No

Section XVI - Other Information

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Medical Chemical Corp. assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

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