



Safety Data Sheet

According to Regulation (EC) No. 1907/2006
OSHA Regulation 29 CFR 1910.1200
Canadian Regulation SOR/88-66

Revision Date: 2012-05-21
Reason for Revision: Section 14 Updated

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 70631 Electrode Cleaning Solution for Food Processing and Preparation
Additional Product Codes: HI 70631L
HI 70631M

Application: Alkaline Cleaning of Meat Grease and Fats from Electrodes

Company Information (USA):

Hanna Instruments, Inc.
584 Park East Dr, Woonsocket, Rhode Island, USA 02895

Technical Service Contact Information:

1-800-426-6287 (8:30AM - 5:00PM ET)
+1-401-766-4260 (8:30AM - 5:00PM ET)

USA Emergency Contact Information:

1-800-424-9300 (Chemtrec 24Hr. Emergency)

International Emergency Contact Information:

+1-703-527-3887 (Chemtrec 24Hr. Emergency)

E-mail Address:

tech@hannainst.com

SECTION 2: HAZARD IDENTIFICATION

Highly flammable. Causes severe burns.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component:	Sodium Hydroxide	Ethyl Alcohol
EC-No.:	215-185-5	200-578-6
CAS-No.:	1310-73-2	64-17-5
Hazard:	C	F
Phrases:	R: 35	R: 11
Content:	> 5% - < 15%	> 50% - < 75%

SECTION 4: FIRST AID MEASURES

After Inhalation: Remove to fresh air. Call in physician.

After Skin Contact: Wash affected area with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.

After Eye Contact: Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in ophthalmologist.

After Swallowing: Make victim drink plenty of water (if necessary several liters), avoid vomiting (risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

General Information: Remove contaminated, soaked clothing immediately and dispose of safely.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Foam, Dry Powder, Carbon Dioxide

Special Risks:

Combustible. Vapors heavier than air. Forms explosive mixtures with air at ambient temperatures. Keep away from sources of ignition.

Special Protective Equipment:

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Additional Information:

Cool container with spray water from a safe distance. Take measures to prevent electrostatic charging.

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Avoid substance contact. Do not inhale vapors. Ensure supply of fresh air in enclosed rooms.

Environmental Precautions:

Do not discharge into the drains/surface waters/groundwater.

Additional Notes:

Take up with liquid-absorbent material.
Render harmless: neutralize with diluted sulfuric acid solution.

SECTION 7: HANDLING AND STORAGE***Handling:***

Takes measures to prevent electrostatic charging. Keep away from sources of ignition. Work under hood. Do not inhale substance. Avoid generation of vapors/aerosols.

Storage:

Tightly closed. In a well ventilated place. Keep away from sources of ignition and heat. Store at room temperature (+15 to +25 °C recommended). Protect from light and moisture. Accessible only for authorized persons.

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SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Type	Value	Source	Type	Value	Source
Ethanol (Denatured)					
TWA (8hr)	1907 mg/m ³	Belgium	TWA (8hr)	1900 mg/m ³	Canada (Ontario)
TWA (8hr)	1880 mg/m ³	Canada (Quebec)	TWA (8hr)	1900 mg/m ³	France
TWA (8hr)	960 mg/m ³	Germany	TWA (8hr)	1900 mg/m ³	Greece
TWA (8hr)	1900 mg/m ³	Hungary	TWA (8hr)	260 mg/m ³	Netherlands
TWA (8hr)	1900 mg/m ³	Poland	TWA (8hr)	1000 ppm	Portugal
TWA (8hr)	1900 mg/m ³	Romania	TWA (8hr)	1910 mg/m ³	Spain
TWA (8hr)	1920 mg/m ³	UK	TWA (8hr)	1000 ppm	USA (ACGIH)
TWA (8hr)	1900 mg/m ³	USA (OSHA)			
Sodium Hydroxide					
Ceiling	2 mg/m ³	Belgium	Ceiling	2 mg/m ³	Canada (Ontario)
Ceiling	2 mg/m ³	Canada (Quebec)	TWA (8hr)	2 mg/m ³	France
TWA (8hr)	2 mg/m ³	Greece	TWA (8hr)	2 mg/m ³	Hungary
TWA (8hr)	0.5 mg/m ³	Poland	Ceiling	2 mg/m ³	Portugal
TWA (8hr)	1 mg/m ³	Romania	Ceiling	2 mg/m ³	Spain
TWA (15min)	2 mg/m ³	UK	Ceiling	2 mg/m ³	USA (ACGIH)
TWA (8hr)	2 mg/m ³	USA (OSHA)			

Engineering:

Maintain general industrial hygiene practice.

Personal Protective Equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

Respiratory Protection:

Required when vapors/aerosols are generated. Work under hood.

Protective Gloves:

Rubber or plastic

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Change contaminated clothing. Apply skin-protective barrier cream. Wash hands after working with substance.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Colorless liquid	Odor:	Alcohol-like odor	Density at 20°C:	0.94 g/cm ³
Melting Point:	ND	Boiling Point:	ND	Solubility:	Soluble
pH at 20°C:	14	Explosion Limit:	Lower 3.5 vol% (ethanol) Upper not available 15.0 vol% (ethanol)	Flash Point:	~ 12°C (ethanol) c.c.
Thermal Decomp.:	NA				

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SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Heating

Hazardous Polymerization:

Will not occur.

Further Information:

Flammable. Explosive with air in a vaporous/gaseous state.
Incompatible with various metals, various alloys, various plastics, animal/vegetable tissues, glass.

Hazardous Decomposition Products:

No information available.

Substances to be Avoided:

Alkali metals, alkaline earth metals, alkali oxides, strong oxidizing agents, halogen-halogen compounds, CrO₃, chromyl chloride, ethylene oxide, fluorine, perchlorates, potassium permanganate / sulfuric acid, perchloric acid, permanganic acid, phosphorus oxides, nitric acid, nitrogen dioxide, uranium hexafluoride, hydrogen peroxide

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

APPLICABLE TO MAIN COMPONENT:

Specific symptoms in animal studies:

Eye irritation test (rabbit): Irritations (ethanol).

Skin irritation test (rabbit): No irritation (ethanol).

Subacute to chronic toxicity

Applicable to the main component:

Sensitization:

Sensitization test (Magnusson and Kligman): negative.

Bacterial mutagenicity: Salmonella typhimurium: negative.

Bacterial mutagenicity: Ames test: negative.

Potential Health Effects:

Inhalation: Irritation symptoms in the respiratory tract.

Skin Contact: Burns.

Eye Contact: Burns. Risk of blindness! Risk of corneal clouding.

Ingestion: Burns. Risk of perforation in the oesophagus and stomach.

Further Data: Systemic effects: Narcosis. The product should be handled with the usual care when dealing with chemicals.

Component Toxicity

Acute Toxicity:

Ethanol (Denatured)

LD50: Oral - Rat - 7060 mg/kg

Additional Data:

Not Available

Chronic Toxicity:

Not Available

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SECTION 12: ECOLOGICAL INFORMATION

APPLICABLE TO MAIN COMPONENT:

Abiotic degradation:

Rapid degradation. (air)

Biologic degradation:

Biodegradation: 94 % modified OECD screening test

Readily biodegradable.

Behavior in environmental compartments:

Distribution: log p(o/w): -0.32 (ethanol);

No bioaccumulation is to be expected (log P(o/w <1).

Ecotoxic effects:

Biological effects: Harmful effect on aquatic organisms. Harmful effect due to pH shift.

Fish toxicity: L.idus LC 50 : 8140 mg/L /48 h (ethanol).

Daphnia toxicity: Daphnia magna EC 50 : 9268-14221 mg/L /48 h (ethanol).

Further Data: No ecological problems are to be expected when the product is handled and used with due care and attention.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Chemical residues are generally classified as special waste and thus covered by local regulations. Contact local authorities or disposal companies for advice. Handle contaminated packaging in the same way as the substance itself.

SECTION 14: TRANSPORTATION INFORMATION

	Land (ADR/RID):	Sea (IMDG):	Air (ICAO/IATA):
UN No.:	2924	2924	2924
Proper Shipping Name:	Flammable liquid, corrosive, n.o.s. (sodium hydroxide, ethanol solution)	Flammable liquid, corrosive, n.o.s. (sodium hydroxide, ethanol solution)	Flammable liquid, corrosive, n.o.s. (sodium hydroxide, ethanol solution)
Class (Sub Risk):	3 (8)	3 (8)	3 (8)
Packing Group:	II	II	II

SECTION 15: REGULATORY INFORMATION

Labeling according to EC Directives:

Symbol: C: Corrosive
F: Highly Flammable

R-phrases: 11-35: Highly flammable. Causes severe burns.

S-phrases: 16-26-37/39-45: Keep away from sources of ignition - No smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Contains: Sodium hydroxide

SECTION 16: OTHER INFORMATION

Text of R-phrases under Section 3

35: Causes severe burns.

Revision Information

Revision Date: 2012-05-21

Supersedes edition of: 2012-05-08

Reason for revision: Section 14 Updated

Legend

NA: Not Applicable

ND: Not Determined

THE INFORMATION CONTAINED HEREIN IS BASED ON THE PRESENT STATE OF OUR KNOWLEDGE. IT CHARACTERIZES THE PRODUCT WITH REGARD TO THE APPROPRIATE SAFETY PRECAUTIONS. IT DOES NOT REPRESENT A GUARANTEE OF THE PROPERTIES OF THE PRODUCT.