

Revision Date: 2008-12-01
Reason for Revision: REACH Compliance and General Update

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 70426 Glyoxal Solution

Additional Product Codes:

Application: For Chemical Analysis

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

Harmful by inhalation. Irritating to eyes and skin. May cause sensitization by skin contact. Possible risks of irreversible effects.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component: Glyoxal

EC-No.: 203-474-9

CAS-No.: 107-22-2

Hazard: Muta. Cat. 3, Xn, Xi

Phrases: R: 36/38-20-43-68

Content: > 20% - < 60%

SECTION 4: FIRST AID MEASURES

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

After Skin Contact: Wash effected area with plenty of water. Remove contaminated clothing. Call in physician.

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

After Swallowing: Make victim drink plenty of water, induce vomiting. Call in physician.

General Information: Not available

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Water spray, Carbon Dioxide, Dry Chemical Powder, Appropriate Foam.

Special Risks:

Non-combustible. Development of hazardous combustion gases or vapours possible in the event of fire. The following may develop in event of fire:
Sulfur Oxides

Special Protective Equipment:

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

Additional Information:

Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

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

Environmental Precautions:

Take up with liquid-absorbent material.

Additional Notes:

None

SECTION 7: HANDLING AND STORAGE

Handling:

Work under hood. Do not inhale substance. Avoid generation of vapours/aerosols.

Storage:

Tightly closed. Store at room temperature (+15 to +25 °C recommended). Protect from light.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Ingredients:

EC
Name: Glyoxal
Mutagenic: M 3: substance which cause concern for man owing possible mutagenic effects
Sensitization: Sh Danger of sensitization of the skin

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. The resistance of the protective clothing to chemicals should be established with the respective supplier.

Respiratory Protection:

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

Protective Gloves:

Rubber or plastic

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Immediately change contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands after working with substance.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Colorless liquid	Odor:	Characteristic	Density at 20° C:	~ 1.27 g/cm ³
Melting Point:	-14 °C	Boiling Point:	104 °C (1013 hPa)	Solubility:	Soluble
pH at 20° C:	~ 2-3	Explosion Limit:	NA	Flash Point:	NA
Thermal Decomp.:	NA				

SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Heating

Hazardous Polymerization:

Will not occur.

Further Information:

Unsuitable working materials: aluminium, steel, copper.

Hazardous Decomposition Products:

In the event of fire: See section 5.

Substances to be Avoided:

Polymerization with: ammonia, amines, alkalis; Exothermic reaction with: chlorosulfonic acid, Ethyleneimine, Sodium hydroxide, nitric acid, conc sulfuric acid

SECTION 11: TOXICOLOGICAL INFORMATION

Applicable to the toxicologically determinant component:

LC50 (inhalation, rat): 2.44 mg/L /4 h.

LD50 (dermal, rat): >2000 mg/kg.

LD50 (oral, rat): 2960 mg/kg.

Specific symptoms in animal studies:

Eye irritation test (rabbit): Irritations (OECD 405).

Subacute to chronic toxicity

Sensitization:

Sensitisation test (Magnusson and Kligman): Sensitizer.

Possible mutagenic effect in humans. The suspicion is based on proven damage to the genetic material in the somatic cells of man and animal and requires further clarification.

In Case of Inhalation: Irritations of the mucous membranes, coughing, and dyspnoea.

In Case of Skin Contact: Irritations. Risk of skin sensitization.

In Case of Eye Contact: Irritations.

In Case of Ingestion: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. nausea.

Further Data: Further hazardous properties cannot be excluded. The product should be handled with the usual care when dealing with chemicals.

SECTION 12: ECOLOGICAL INFORMATION

Biologic degradation:

Biodegradation: 90-100 % /28 d.

Readily biodegradable.

Behavior in environmental compartments:

Distribution: log Pow: -1.15 (experimental).

No bioaccumulation is to be expected (log Pow <1).

Ecotoxic effects:

Biological effects:

Fish toxicity: L.idus LC50: 460-680 mg/L /96 h.

Daphnia toxicity: Daphnia magna EC50: 404 mg/L /48 h.

Algeal toxicity: Desmodesmus subspicatus IC50: >100 mg/L /72 h.

Bacterial toxicity: Ps.putida EC50: 102 mg/L /16 h.

Further Data: Do not allow to enter waters, waste water, or soil!

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:

Not subject to transport regulations

Sea:

Not subject to transport regulations

Air:

Not subject to transport regulations

SECTION 15: REGULATORY INFORMATION

Labeling according to EC Directives:

Symbol: Xn: Harmful

R-phrases: 20-36/38-43-68: Harmful by inhalation. Irritating to eyes and skin. May cause sensitization by skin contact. Possible risks of irreversible effects.

S-phrases: 36/37: Wear suitable protective clothing and gloves.

Contains: Glyoxal

SECTION 16: OTHER INFORMATION

Text of R-phrases under Section 3

20:Harmful by inhalation.
36/38:Irritating to eyes and skin.
43:May cause sensitization by skin contact.
68:Possible risks of irreversible effects.

Revision Information

Revision Date: 2008-12-01
Supersedes edition of: 2006-06-13
Reason for revision: REACH Compliance and General Update

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.