

MATERIAL SAFETY DATA SHEET



Conforms to 93/112/EC and ISO 11014-1

1. Chemical Product and Company Identification

Product Name: Mirsky's Fixative (ready-to-use)

Product Number: HS-101

Chemical Names/

Description:

Manufacturer

National Diagnostics
305 Patton Drive
Atlanta, GA 30336

Telephone Numbers

(800) 526-3867
(404) 699-2121

Emergency Numbers

Chemtrec

(800) 424-9300 (U.S. & Canada)

01-703-527-3887 (outside U.S. & Canada)

2. Composition/Information on Ingredients

| Component | % Comp. | CAS # | EINECS # | TLV (Units) |
|-----------------------|---------|-----------|-----------|---------------------------------|
| Glyoxal | 3.5 - 5 | 107-22-2 | | none established |
| Water | 80 | 7732-18-5 | 231-791-2 | |
| Dipotassium Phosphate | 1 - 5 | 7758-11-4 | 231-834-5 | 10 mg/m ³ total dust |

EEC LABEL SYMBOL AND CLASSIFICATION



IRRITANT

R: 36/38

Irritating to eyes and skin.

S: 26-28

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water.

3. Hazards Identification

Appearance and Odor

Clear colorless solution

EMERGENCY OVERVIEW - IMMEDIATE HAZARD

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

EMERGENCY OVERVIEW - CHRONIC HAZARD WARNING:

No information found.

Potential Health Effects

Inhalation

Causes irritation to the respiratory tract.

Ingestion

Harmful if swallowed. Specific health effects from ingestion unknown. May cause irritation to the gastrointestinal tract.

Skin

Causes irritation to skin.

Eyes

Causes irritation to eyes.

Signs and Symptoms of Overexposure

Inhalation

Coughing, shortness of breath.

Ingestion

Nausea, vomiting, and diarrhea.

Skin

Redness, itching, and pain.

Eyes

Redness and pain.

Carcinogenicity

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Mutagenicity

No information found.

Reproductive Toxicity

No information found.

Teratogenic Effects

No information found.

Routes of Entry

No information found.

Target Organ Statement

No information found.

4. First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician.

Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

| | | | |
|--------------------|------|--------------------------|------|
| Flash Point | N.A. | Flammable Limits | N.A. |
| Flash Point Method | N.A. | Autoignition temperature | N.A. |

Extinguishing media

Use media appropriate to the primary cause of fire.

Protective Equipment

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Hazardous Combustion Products

Thermal decomposition products may include carbon monoxide and carbon dioxide.

Unusual Fire and Explosion Hazards

Not considered an explosion hazard.

NFPA Codes: Health 1 Flammability 0 Reactivity 0

6. Accidental Release Measures

Steps to be taken in case material is released or spilled

Contain and clean up spill immediately, prevent from entering floor drains. Contain liquids using absorbents. Shovel all spill materials into disposal drum. Scrub spill area with detergent, flush with copious amounts of water.

Waste Disposal Method

Disposal must be made in accordance with applicable federal, state, and local regulations.

Personal Precautions

Wear appropriate protective equipment as specified in section 8.

7. Handling and Storage

Handling

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

Storage

Keep in a tightly closed container, stored in a cooled, dry, ventilated area.

Storage Temperature

Room Temperature

Disposal

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).

8. Exposure Controls/Personal Protection

Airborne Exposure Limits

Component: Glyoxal

ACGIH Threshold Limit Value (TLV): none established

OSHA Permissible Exposure Limit (PEL): none established

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

Respiratory Protection

For conditions of use where exposure to the dust or mist is apparent, a full-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Other Control Measures

There is insufficient data in the published literature to assign complete numerical safety ratings and laboratory protective equipment for this product. Special precautions must be used in storage, use and handling.

9. Physical Properties

Boiling point Water

Evaporation Rate Water

Melting point ~4 C

Solubility in water Miscible

Vapor pressure (mmHg) Water

pH 9

Vapor density (Air = 1) Air

Specific gravity (H₂O = 1) 1.16

% volatile by volume 80

10. Stability and Reactivity

Stability

Stable under normal conditions of use and storage.

Conditions to Avoid

No information found.

Hazardous Decomposition Products

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization

Will not occur

Incompatibles

Glyoxal:

Reacts weakly to acids. Incompatible with strong oxidizing agents, strong bases, silver, copper and iron salts. Corrosive to most metals.

Water:

No incompatibility data found.

Dipotassium Phosphate:

No incompatibility data found.

11. Toxicological Information

Product LD50 Values

| | | |
|-------------------------------------|-----------------------------|--------|
| Mirsky's Fixative (ready-to-use) | Oral Rat LD50 (mg/kg): | 220000 |
| Mirsky's Fixative (ready-to-use) | Dermal Rabbit LD50 (mg/kg): | N.D. |

Component Cancer List Status

| | NTP Carcinogen | | IARC Category |
|-----------------------|----------------|-------------|------------------|
| | Known | Anticipated | |
| Glyoxal | No | No | None |
| Water | No | No | None |
| Dipotassium Phosphate | No | No | None |

12. Ecological Information

Glyoxal

No information found.

Water

Not applicable.

Dipotassium Phosphate

No information found.

13. Disposal Considerations

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).

14. Transport Information

D.O.T.

Proper Shipping Name: Not Regulated

Hazard Class: N.A.

UN Number: N.A.

Packing Group: N.A.

I.A.T.A.

Proper Shipping Name: Not Regulated

Hazard Class: N.A.
UN Number: N.A.
Packing Group: N.A.

I.M.O.

Proper Shipping Name: Not Regulated
Hazard Class: N.A.
UN Number: N.A.
Packing Group: N.A.

15. Regulatory Information

United States

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

| Component | Fire | Pressure | Reactivity | Acute | Chronic |
|-----------------------|------|----------|------------|-------|---------|
| Glyoxal | No | No | No | Yes | No |
| Water | No | No | No | No | No |
| Dipotassium Phosphate | No | No | No | Yes | Yes |

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

EEC LABEL SYMBOL AND CLASSIFICATION



R: 36/38

Irritating to eyes and skin.

S: 26-28

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16. Other Information

NFPA Codes: Health 1 Flammability 0 Reactivity 0

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