



National Biochemicals Corp.

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MATERIAL SAFETY DATA SHEET

Ninhydrin

01750

05073

05074

NPFA	HMIS	Personal Protective Equipment										
	<table><tr><td>HEALTH</td><td>2</td></tr><tr><td>FLAMMABILITY</td><td>1</td></tr><tr><td>REACTIVITY</td><td>0</td></tr><tr><td>PPE</td><td>C</td></tr></table>	HEALTH	2	FLAMMABILITY	1	REACTIVITY	0	PPE	C			
HEALTH	2											
FLAMMABILITY	1											
REACTIVITY	0											
PPE	C											

In Case of Emergency: Call ChemTrac (24 hr): 800-424-9300, 703-527-3887 Call (330)425-2522

MN 1135	Ninhydrin	MSDS0053
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1. Product Identification

Synonyms: 1,2,3-Indantrione monohydrate; triketohydrindene hydrate

CAS No.: 485-47-2

Molecular Weight: 178.14

Chemical Formula: C₉H₄O₃.H₂O

Product Codes: MN 1135

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Ninhydrin Monohydrate	485-47-2	90 - 100%	Yes

3. Hazards Identification

Emergency Overview

WARNING! CAUSES IRRITATION TO EYES AND SKIN. MAY BE HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN.

Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

Storage Color Code: Orange (General Storage)

Potential Health Effects

Information on the human health effects from exposure to this substance is limited.

Inhalation:

Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

Ingestion:

Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

Skin Contact:

Causes irritation. May be absorbed through skin. Discolors the skin.

Eye Contact:

Causes irritation, redness, and pain.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:

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

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Explosion:

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Fire Extinguishing Media:

Dry chemical, foam, carbon dioxide, or water spray.

Special Information:

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.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

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

Eye Protection:

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

9. Physical and Chemical Properties

Appearance:

White to brownish-white crystals.

Odor:
No information found.

Solubility:
Freely soluble.

Specific Gravity:
No information found.

pH:
No information found.

% Volatiles by volume @ 21C (70F):
0

Boiling Point:
Not applicable.

Melting Point:
250C (482F)

Vapor Density (Air=1):
6.16

Vapor Pressure (mm Hg):
No information found.

Evaporation Rate (BuAc=1):
No information found.

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage. Reddens when heated above 100C(212F)

Hazardous Decomposition Products:
Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
Strong oxidizers.

Conditions to Avoid:
Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

-----\Cancer Lists\-----

---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
Ninhydrin Monohydrate (485-47-2)	No	No	None

12. Ecological Information

Environmental Fate:
No information found.

Environmental Toxicity:
No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
Ninhydrin Monohydrate (485-47-2)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----

--Canada--				
Ingredient	Korea	DSL	NDSL	Phil.
-----\Federal, State & International Regulations - Part 1\-----				
Ninhydrin Monohydrate (485-47-2)			Yes	Yes
-----\Federal, State & International Regulations - Part 2\-----				
-SARA 302- -SARA 313-				
Ingredient	RQ	TPQ	List	Chemical Catg.
-----\Federal, State & International Regulations - Part 2\-----				
Ninhydrin Monohydrate (485-47-2)	No	No	No	No
-----\Federal, State & International Regulations - Part 2\-----				
-RCRA- -TSCA-				
Ingredient	CERCLA	261.33	8(d)	
-----\Federal, State & International Regulations - Part 2\-----				
Ninhydrin Monohydrate (485-47-2)	No	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No
 Reactivity: No (Pure / Solid)

Australian Hazchem Code: None allocated.
 Poison Schedule: None allocated.

WHMIS:
 This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0
 Label Hazard Warning:
 WARNING! CAUSES IRRITATION TO EYES AND SKIN. MAY BE HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN.
 Label Precautions:
 Avoid contact with eyes, skin and clothing.
 Wash thoroughly after handling.
 Avoid breathing dust.
 Keep container closed.
 Use with adequate ventilation.
 Label First Aid:
 In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person.
 Product Use:
 Laboratory Reagent.
 Revision Information:
 No Changes.

Status: Reviewed Reviewed By: PRP Review Date: 03/13/2006

DISCLAIMER:

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