

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

Product name : 3,3'-Dihydroxybenzidine  
CAS No. : 2373-98-0

**Manufacturer or supplier's details**

Company : Heynova (Shanghai) New Material Technology CO., Ltd  
Address : Building 3, No. 690 Bibo Road, Pudong New Area, Shanghai, China  
Telephone : +86-178-2110-2608  
E-mail address : info@heynovachem.com

## 2. HAZARDS IDENTIFICATION

**Emergency Overview**

**Appearance** : Solid form  
**Color** : white - orange  
Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. May cause damage to organs (Liver) through prolonged or repeated exposure.

**GHS Classification**

Skin corrosion/irritation : Category 2  
Serious eye damage/eye irritation : Category 2A  
Carcinogenicity : Category 2  
Specific target organ toxicity - repeated exposure : Category 2 (Liver)

**GHS label elements**

Hazard pictograms



Signal Word

: Warning

Hazard Statements

: H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H351 Suspected of causing cancer.  
H373 May cause damage to organs (Liver) through prolonged or repeated exposure.

Precautionary Statements

: **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Physical and chemical hazards**

Not classified based on available information.

**Health hazards**

Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

**Environmental hazards**

Not classified based on available information.

**Other hazards which do not result in classification**

None known.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

**Components**

Chemical name	CAS RN	Concentration (% w/w)
3,3'-Dihydroxybenzidine	2373-98-0	99

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**4. FIRST AID MEASURES**If inhaled : Remove person to fresh air and keep comfortable for breathing.  
Get medical advice/ attention.In case of skin contact : Take off all contaminated clothing immediately.  
Wash off with plenty of water.  
Get medical advice/ attention.In case of eye contact : Rinse with plenty of water.  
If easy to do, remove contact lens, if worn.  
Get medical advice/ attention.If swallowed : Get medical advice/ attention.  
Rinse mouth.

Most important symptoms and effects, both acute and delayed : None known.

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**5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media : Dry powder, Foam, Water spray, Carbon dioxide (CO2)

Specific hazards during fire fighting : No information available.

- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Immediately evacuate personnel to safe areas.  
Remove undamaged containers from fire area if it is safe to do so.
- Special protective equipment for fire-fighters : Use personal protective equipment.

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## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear suitable protective equipment.  
Keep people away from and upwind of spill/leak.  
Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
- Environmental precautions : Prevent product from entering drains.
- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.

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## 7. HANDLING AND STORAGE

### Handling

- Technical measures : Prevent dispersion of dust.
- Local/Total ventilation : Ensure adequate ventilation.  
Handle product only in closed system or provide appropriate exhaust ventilation at machinery.  
Use a local exhaust ventilation.
- Advice on safe handling : Avoid contact with skin, eyes and clothing.  
Wear personal protective equipment.  
Wash hands and face thoroughly after handling.
- Avoidance of contact : Oxidizing agents

### Storage

- Conditions for safe storage : Keep container tightly closed.  
Store in a cool and shaded area.  
Keep under inert gas.  
Store locked up.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures** : Install a closed system or local exhaust.  
Also install safety shower and eye bath.

### Personal protective equipment

- Respiratory protection : Dustproof gas mask  
Self-contained breathing apparatus
- Eye/face protection : Safety glasses  
Safety goggles  
Face-shield

Skin and body protection : Impervious protective clothing

Hand protection : Impervious gloves

\*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: solid
Color	: white - orange
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Melting point/freezing point	: 292 °C
Boiling point/boiling range	: No data available
Flash point	: No data available
Evaporation rate	: No data available
Flammability	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: No data available
Solubility(ies)	
Water solubility	: very slightly soluble
Solubility in other solvents	: soluble Solvent: Dimethylformamide
Partition coefficient: n-octanol/water	: No data available
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Molecular weight	: 216.24 g/mol

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## 10. STABILITY AND REACTIVITY

Reactivity	: No data available
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: None under normal processing.
Conditions to avoid	: Exposure to air.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>)

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## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity** : No information available.

### **Skin corrosion/irritation**

**Product:**

Result : Skin irritation

**Components:**

**3,3'-Dihydroxybenzidine:**

Result : Skin irritation

### **Serious eye damage/eye irritation**

**Product:**

Result : Eye irritation

**Components:**

**3,3'-Dihydroxybenzidine:**

Result : Eye irritation

**Respiratory or skin sensitization** : No information available.

**Germ cell mutagenicity** : No information available.

### **Carcinogenicity**

**Product:**

Carcinogenicity - Assessment : Suspected human carcinogens

**Components:**

**3,3'-Dihydroxybenzidine:**

Carcinogenicity - Assessment : Suspected human carcinogens

**Reproductive toxicity** : No information available.

**STOT-single exposure** : No information available.

### **STOT-repeated exposure**

**Product:**

Target Organs : Liver

Assessment : May cause damage to organs through prolonged or repeated exposure.

**Components:**

**3,3'-Dihydroxybenzidine:**

Target Organs : Liver

Assessment : May cause damage to organs through prolonged or repeated exposure.

<b>Repeated dose toxicity</b>	:	No information available.
<b>Aspiration toxicity</b>	:	No information available.
<b>RTECS No.</b>	:	DV4900000 (3,3'-Dihydroxybenzidine)

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## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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## 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

Waste from residues	:	Disposal in accordance with local and national regulations. Entrust disposal to a licensed waste disposal company.
Contaminated packaging	:	Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

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## 14. TRANSPORT INFORMATION

**International Regulations****IATA-DGR**

UN/ID No.	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable

**IMDG-Code**

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
EmS Code	:	Not applicable

**Domestic regulation****GB 6944/12268**

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable

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**15. REGULATORY INFORMATION****Measures on the Environmental Administration of New Chemical Substances Registration**

Registration/Notification number : 0JO2SPRLR1  
B1A232214633

Downstream users need to comply with the conditions of safe use of the chemical, understand the environmental and health hazard and risk management measures identified on the SDS as well as the local/national regulations concerning the chemical.

**The ingredients of this product are reported in the following inventories:**

CH BAGREG	: Not in compliance with the inventory
TSCA	: Substance(s) not listed on TSCA inventory
AICS	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL.  3,3'-Dihydroxybenzidine
ENCS	: Not in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory
NZIoC	: Not in compliance with the inventory

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**16. OTHER INFORMATION**

Revision Date : 2024/11/30  
Date format : yyyy/mm/dd

**Disclaimer**

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.