



## Material Safety Data Sheet (MSDS)

Version 2.0

Revision date 1.1.2017

### 1. IDENTIFICATION OF THE PRODUCT AND MANUFACTURE

#### 1.1 PRODUCT IDENTIFIER

**Product name** Food Additive Indigo Carmine  
**Identified uses** Food color, which can be used in food, drugs, cosmetics, etc.

#### 1.2 MANUFACTURE INFORMATION

**Company** Shanghai Dyestuffs Research Institute Co., Ltd  
**Address** No.1238 ZhongShan Rd.(N), Shanghai  
**Post Code** 200065  
**Telephone** 008621-56086210  
**Fax** 008621-56084790  
**Address** shitou@shi-tou.com

**1.3 EMERGENCY PHONE NO.** 008621-56093493

### 2. HAZARDS IDENTIFICATION

#### 2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**  
 Not classified

#### 2.2 LABEL ELEMENTS

**Labeling according Regulation (EC) No 1272/2008 [CLP]**

**Hazard pictograms** No data available.  
**Signal word** No signal word.  
**Hazard statements** No known significant effects or critical hazards.

**Precautionary statement(s)**

**Main symptoms** May cause an allergic skin reaction.  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Emergency measures** Move to fresh air and keep comfortable rest position if inhaled and cause dyspnea.  
 If symptoms start to deteriorate: Call a POISON CENTER or doctor/ physician.

#### 2.3 OTHER HAZARDS

None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 COMPOSITION**

It's an organic compound.

**3.2 SPECIFIC INFORMATION**

<b>Chemical name</b>	the disodium salt of 2-(1,3-dihydro-3-oxo-5-sulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid
<b>Synonyms</b>	Indigo Carmine
<b>Formula</b>	$C_{16}H_8N_2Na_2O_8S_2$
<b>Formula weight</b>	466.36
<b>CAS-No.</b>	860-22-0
<b>EINECS-No.</b>	212-728-8
<b>Color Index</b>	C.I. 73015 C.I.FOOD BLUE 1

**4. FIRST AID MEASURES****4.1 DESCRIPTION OF FIRST AID MEASURES**

<b>If inhaled</b>	Move person into fresh air. Keep person warm and at rest. If not breathing, give artificial respiration and call a POISON CENTER or doctor/ physician.
<b>In case of skin contact</b>	Wash off with soap and plenty of water.
<b>In case of eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
<b>If swallowed</b>	Emetic and rinse mouth with water. Consult a physician.

**4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED**

See Section 11 for more detailed information on health effects and symptoms.

**4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

See Section 11 for more detailed information on health effects and symptoms.

**5. FIRE-FIGHTING MEASURES****5.1 EXTINGUISHING MEDIA**

**Suitable extinguishing media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE**

No specific fire or explosion hazard.

**5.3 ADVICE FOR FIREFIGHTERS**

Wear appropriate protective equipment and self-contained breathing apparatus for firefighting if necessary.

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## 6. ACCIDENTAL RELEASE MEASURES

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### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protective equipment. Keep unnecessary and unprotected personnel from entering. Avoid dust formation. Avoid breathing vapors, dust or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8. Hazard of slipping on spilt product.

### 6.2 ENVIRONMENTAL PRECAUTIONS

Avoid dispersal of spilt material and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution.

### 6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Damp down. Pick up and arrange disposal without creating dust. Scoop into closed, marked containers. Dispose of via a licensed waste disposal contractor.

### 6.4 REFERENCE TO OTHER SECTIONS

For information on appropriate personal protective equipment see section 8.

For disposal see section 13.

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## 7. HANDLING AND STORAGE

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### 7.1 PRECAUTIONS FOR SAFE HANDLING

Avoid swallowed, inhaled and contact with skin and eyes. Rinse thoroughly after operation. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### 7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Equip essential fire-fighting device.

### 7.3 SPECIFIC END USE(S)

Apart from the uses mentioned in section 1.1 no other specific uses are stipulated.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1 CONTROL PARAMETERS

No data available.

### 8.2 EXPOSURE CONTROLS

Handle in accordance with good industrial hygiene and safety practice. Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**8.3 PERSONAL PROTECTIVE MEASURES**

<b>Respiratory protection</b>	Dust-protection mask approved under appropriate government standards such as NIOSH (US) or CEN (EU).
<b>Hand protection</b>	Gloves approved under appropriate government standards such as NIOSH (US) or 89/686/EEC.
<b>Eye protection</b>	Safety eyewear approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
<b>Skin/body protection</b>	Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES****GENERAL INFORMATION**

<b>Appearance</b>	Powder
<b>Color</b>	Blue
<b>Odour</b>	None
<b><u>Important health, safety and environmental information</u></b>	
<b>pH</b>	6.5— 8.5(10g/L)
<b>Melting/freezing point</b>	No data available
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point</b>	No data available
<b>Explosion limit</b>	No data available
<b>Vapour pressure/density</b>	No data available
<b>Density</b>	1.0g/cm <sup>3</sup>
<b>Water solubility</b>	160-220g/L(25℃)

**9.2 OTHER INFORMATION**

<b>Partition coefficient: noctanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Oxidizing properties</b>	None

**10. STABILITY AND REACTIVITY****10.1 REACTIVITY**

No data available

**10.2 CHEMICAL STABILITY**

This product is stable.

**10.3 POSSIBILITY OF HAZARDOUS REACTIONS**

No data available

**10.4 CONDITIONS TO AVOID**

No data available

**10.5 INCOMPATIBLE MATERIALS**

No data available

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS**

No data available

**11. TOXICOLOGICAL INFORMATION**

**11.1 INFORMATION ON TOXICOLOGICAL EFFECTS**

<b>Acute toxicity</b>	LD50 Oral - rat - >2000mg/kg
<b>Skin corrosion/irritation</b>	Non-irritant/corrosive rabbit
<b>Eye corrosion/irritation</b>	Non-irritant/corrosive rabbit
<b>Respiratory or skin sensitization</b>	May cause respiratory or skin sensitization.
<b>Germ cell mutagenicity</b>	Genotoxicity in vitro - Histidine reversion (Ames)
<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>Reproductive toxicity</b>	No data available
<b>Specific target organ Toxicity-single exposure</b>	No data available
<b>Specific target organ Toxicity-repeated exposure</b>	No data available
<b>Aspiration hazard</b>	May cause respiratory irritation.

**12. ECOLOGICAL INFORMATION**

**12.1 TOXICITY**

<b>Toxicity to daphnia and other aquatic invertebrates</b>	No data available
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**12.2 PERSISTENCE AND DEGRADABILITY**

No data available

**12.3 BIOACCUMULATIVE POTENTIAL**

No data available

**12.4 MOBILITY IN SOIL**

No data available

**12.5 RESULTS OF PBT AND vPVB ASSESSMENT**

No data available

**12.6 OTHER ADVERSE EFFECTS**

<b>Arsenic</b>	≤3.0mg/kg
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<b>Lead</b>	≤10.0 mg/kg
<b>Barium</b>	≤500 mg/kg

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 WASTE TREATMENT METHODS

<b>Product</b>	Product residues and uncleaned empty containers should be packaged, sealed, labeled, and disposed of or recycled according to relevant national and local regulations.
<b>Contaminated packaging</b>	Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Observe national and local regulations.

### 14. TRANSPORT INFORMATION

#### 14.1 UN NUMBER

ADR/RID: —                      IMDG: —                      IATA: —

#### 14.2 UN PROPER SHIPPING NAME

**ADR/RID:**                              Not dangerous goods  
**IMDG:**                                      Not dangerous goods  
**IATA:**                                      Not dangerous goods

#### 14.3 TRANSPORT HAZARD CLASS(ES)

ADR/RID: —                      IMDG: —                      IATA: —

#### 14.4 PACKAGING GROUP

ADR/RID: —                      IMDG: —                      IATA: —

#### 14.5 ENVIRONMENTAL HAZARDS

ADR/RID: —                      IMDG Marine pollutant: no      IATA: —

#### 14.6 SPECIAL PRECAUTIONS FOR USER

Pay much attention to the rain, moisture, sunshine and keep away from poisonous/harmful objects.

### 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No.1907/2006.

#### 15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

No data available

#### 15.2 CHEMICAL SAFETY ASSESSMENT

No data available

## 16. OTHER INFORMATION

Relevant national and local regulations should be observed while using this product.

The data given here is based on current knowledge and experience. The given details do not imply any guarantee concerning the composition, properties or performance.

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