



### SAFETY DATA SHEET

#### 1. PRODUCT AND COMPANY IDENTIFICATION


1.1 Product identifiers	
i	Product Name : <b>Ethylene Diamine Dihydroiodide</b>
ii	Chemical Formula : $C_2H_{10}I_2N_2$
iii	CAS No. : 5700-49-2
iv	EC No. : 227-186-8
v	HSN Code : 29212100
vi	Hazardous : No
vii	Content : Minimum 99.0%
viii	Appearance : White free flowing crystals
1.2 Relevant identified uses of the substance	
i	Identified uses : Laboratory chemicals
1.3 Details of Manufacturer	
i	Company : <b>Samrat Pharmachem Limited</b>
ii	Address : Plot No. A2/3444-3445, GIDC, Phase 4, Ankleshwar – 393002, Gujarat, India.
iii	Phone : +91-7045456789 / 7046456789
iv	Email : <a href="mailto:contact@samratpharmachem.in">contact@samratpharmachem.in</a>
v	Webpage : <a href="http://www.samratpharmachem.com">www.samratpharmachem.com</a>
1.4 Emergency Number	
	Emergency Phone : +91-7045456789 / 7046456789



#### 2. HAZARD IDENTIFICATION

2.1 Classification of substance			
i	H302	Acute Oral Toxicity	: Harmful if swallowed (Category 4)
ii	H315	Skin Corrosion / Irritation	: Causes skin irritation (Category 2)
iii	H319	Eye Irritation	: Causes serious eye irritation (Category 2)
iv	H335	Specific Target Organ Toxicity (Respiratory)	: May cause respiratory irritation; Single Exposure (Category 3)



2.2 GHS Label elements, including precautionary statements	
i	Pictogram : 
ii	Signal word : Danger
iii	Hazard Statement(s)
	H302 : Harmful if swallowed
	H315 : Causes skin irritation
	H319 : Causes serious eye irritation
	H335 : May cause respiratory irritation
iv	Precautionary Statement(s)
	P261 : Avoid breathing dust / fumes / gas / mist / vapours / spray
	P264 : Wash exposed skin thoroughly after handling
	P271 : Use outdoors or in a well-ventilated area
	P280 : Wear protective clothing, gloves, eye & face equipment
	P301 + P330 + P331 : IF SWALLOWED: rinse mouth. DO NOT induce vomiting
	P303 + P361 + P353 : IF ON SKIN (or hair): Remove all contaminated clothing. Rise skin with water/shower
	P305 + P351 + P338 : IF IN EYES: Rise cautiously with water for several minutes. Remove contact lenses in present.
	P312 : Immediately call a poison centre or doctor / physician
	P333 + P313 : If skin irritation or rash occurs: Get medical advice / attention
	P391 : Collect spillage
	P405 : Lock up storage
	P501 : Disposal of contents / containers to comply with local, state and federal regulations



2.3 Hazards not otherwise classified (HNOC) or not covered by GHS	
No information available	

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances	
	Molecular Weight : 315.92 g/mol
	Constituent Elements : C <sub>2</sub> H <sub>10</sub> I <sub>2</sub> N <sub>2</sub>



### 4. FIRST AID MEASURES

<b>4.1 Symptoms</b>	
i	<b>Most important symptoms and effects, both acute and delayed</b> Eye Burn / Irritation, repeated skin exposure can cause absorption which may lead to health hazards.
ii	<b>Indication of any immediate medical attention &amp; special treatment needed</b> If seeking medical attention, provide SDS document to physician.
<b>4.2 Description of first aid measures</b>	
i	Inhalation : Remove to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if person has inhaled the substance. Induce artificial respiration with the aid of approved medical device.
ii	Ingestion : If swallowed, washout mouth with plenty of water and allow him to drink 2-4 cupful's of water provided victim is conscious.
iii	Skin contact : Wash thoroughly with soap and plenty of water, while removing contaminated clothing and shoes.
iv	Eye contact : Flush with plenty of water for at least 15 minutes occasionally lifting lower and upper eyelid.



### 5. FIRE FIGHTING MEASURES

<b>5.1 Extinguishing media</b>	
i	Suitable extinguishing agents : Carbon Dioxide, Dry Chemical Powder, Water spray, or as appropriate to surrounding fire conditions. Product is Non-Inflammable
ii	Special hazards arising from the substance or mixture : Product is not flammable but toxic iodine vapors may arise during fire
iii	Special remarks on Explosion Hazard : May emit toxic iodine fumes with exposure to high heat.
iv	Advice for firefighters : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.



### 6. ACCIDENTAL RELEASE MEASURES

<b>6.1 Personal precautions, protective equipment &amp; emergency procedures</b>	
	Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Do not touch or walk on spilled product. Splash goggles. Lab coat. Be sure to use an approved/certified respirator or equivalent.





<b>6.2</b>	<b>Methods and material for containment and cleaning up</b>
	Sweep up material. Place into a suitable labeled disposal container. Avoid generating dust. Wash spill site after material has been picked up. Notify the government occupational health, safety and environmental authorities.

## 7. HANDLING AND STORAGE

<b>7.1</b>	<b>Precautions for safe handling</b>
	Use only in well-ventilated area. Avoid dust generation. use all protective safety equipment.
<b>7.2</b>	<b>Conditions for safe storage, including any incompatibilities</b>
	Keep Tightly Closed & Store in a cool dry place below 100°F chemical is hygroscopic and light sensitive. Keep away from heat, spark, open flame sources of ignition and other incompatible materials.
<b>7.3</b>	<b>Specific end use(s)</b>
	The product has applications in the following industries such as Animal feed.



## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>8.1</b>	<b>Control Parameters</b>
	No information available
<b>8.2</b>	<b>Exposure Controls</b>
i	<i>Appropriate engineering controls</i>
	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit, Personnel encloses and control of process conditions. Supply sufficient amount of air to make up for air removed by exhaust system.
ii	<i>Personal protective equipment</i>
(a)	<i>Eye / face protection</i>
	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU) Safety glasses
(b)	<i>Skin Protection</i>
	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
(c)	<i>Body Protection</i>
	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.





(d)	Respiratory protection
	Always use a NIOSH approved, at minimum, P95 filtration efficiency respirator or, NIOSH P100 cartridge for a full-face respirator. Observe the manufacturer's cartridge service-life and the recommended change schedule. Refer to OSHA's 29 CFR 1910.134 Respiratory Protection Program for regulatory compliance is the use of these respirators.
(e)	Control of environmental exposure
	Do not let product enter environment without proper government permit.



### 9. PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Form: free flowing crystals Colour: White	<b>Flammability</b>	Not determined
<b>Odour</b>	Mild characteristic odour	<b>Vapour pressure</b>	Not determined
<b>Odour threshold</b>	Not determined	<b>Relative vapour density at 20°C</b>	Not determined
<b>pH-value</b>	4 – 5 of 10% aqueous solution	<b>Relative density</b>	Not determined
<b>Melting/Freezing point</b>	About 337°C	<b>Solubility</b>	Not determined
<b>Boiling point</b>	Not available	<b>Partition coefficient (n-octanol/water)</b>	Not determined
<b>Flash Point</b>	Not determined	<b>Auto/Self-ignition temperature</b>	Not determined
<b>Evaporation rate</b>	Not determined	<b>Decomposition temperature</b>	Not determined
<b>Flammability</b>	Not determined	<b>Viscosity</b>	Not determined
<b>Density</b>	Not determined	<b>Poison Class</b>	Not determined





### 10. STABILITY & REACTIVITY

(a)	Reactivity	: Do not store in humid environment
(b)	Chemical stability	: Stable under ambient temperatures and pressure, but will yellow as a result of oxidation by the formation of free iodine. Sodium Iodide is highly hygroscopic.
(c)	Possible hazardous reactions	: None under normal processing. Can react violently on contact with incompatibles given below.
(d)	Conditions to avoid	: Humidity, Metallic Salts, Oxidizing agents, open flame, light, source of ignition, alkalis.
(e)	Incompatible material	: Humidity, Metallic salts, Alkalis, acids, Oxidizing agents. Violent reaction or ignition on contact with diazonium salts
(f)	Hazardous decomposition products	: Liberates Iodine, Carbon Dioxide and Nitrogen Oxide



### 11. TOXICOLOGICAL INFORMATION

<b>11.1 Information on toxicological effects</b>	
	Not reported
<b>11.2 Corrosion Irritation</b>	
Serious eye damage / irritation	Causes serious eye irritation
Respiratory or skin irritation	May cause sensitization.
Germ cell mutagenicity	Not reported
Carcinogenicity	Not reported
Reproductive Toxicity	Not reported
<b>11.3 Additional information</b>	
i	No information available



### 12. ECOLOGICAL INFORMATION

<b>12.1 Toxicity</b>		
No data available but do not release into the aquatic environment without government permit.		
<b>12.2 Persistence and degradability</b>		
(a)	Persistence and degradability	Biodegradability
(b)	Biodegradation	Not available
<b>12.3 Bio accumulative potential</b>		
No data available		
<b>12.4 Mobility in Soil</b>		
(a)	No data available	
<b>12.5 Results of PBT and vPvB assessment</b>		
No data available		
<b>12.6 Other adverse effects</b>		
Not known		





# Samrat Pharmachem Limited

Manufacturers & Exporters of Pharmaceutical Chemicals

## 13. DISPOSAL CONSIDERATIONS

<b>13.1 Waste disposal recommendation's</b>	
i	General instructions
	Dispose of in a manner consistent with federal, state and local regulations. Collect all the waste in a well-covered / spill proof container and review government approval before disposal.
ii	Product / Packaging disposal recommendations
	Avoid release to the environment



## 14. TRANSPORT INFORMATION

<b>14.1</b>	<b>In accordance with ADR / IMDG / IATA / ADN / RID</b>
	Not regulated as a dangerous good

## 15. REGULATORY INFORMATION

<b>15.1</b>	<b>Regulations</b>
i	TSCA : CAS# 333-18-6 is listed on the TSCA inventory.
ii	Clean Air Act: -This material does not contain any hazardous air pollutants. -This material does not contain any Class 1 Ozone depletors. -This material does not contain any Class 2 Ozone depletors.
iii	Clean Water Act: -None of the chemicals in this product are listed as Hazardous Substances under the CWA. -None of the chemicals in this product are listed as Priority Pollutants under the CWA. -None of the chemicals in this product are listed as Toxic Pollutants under the CWA.



## 16. OTHER INFORMATION

<b>16.1 NFPA Rating</b>	
i	Health hazard : 1 - Exposure would cause irritation with only minor residual injury
ii	Fire hazard : 0 - Materials that will not burn under typical dire conditions, including intrinsically non-combustible materials such as concrete, stone, and sand.
iii	Reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



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16.2 HMIS Rating		Health	1
		Fire	0
		Reactivity	0
		Personal Protection	J
i	Health	:	1 – Slight hazard-Substance not considered toxic under OSHA’s Hazard Communication Standard. Substances slightly or mildly irritating to the skin. Slightly or mildly irritating to the eyes and reversible within 7 days.
ii	Flammability	:	0 - Minimal Hazard - Materials that will not burn
iii	Physical	:	0 - Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
vi	Personal Protection	:	J - Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.
16.3 Further Information			
	The above information is derived from the available literature & believed to be correct but may not be complete & conclusive. The company shall not be responsible for any damage resulting from handling or usage of the product. The information shall be used only as a guide.		

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable