

MATERIAL SAFETY DATA SHEET

Chemical Product

Product Name: INDOLE-3-ACETIC ACID

CAS#: 87-51-4

Synonym: 3-Indoleacetic Acid; Heteroauxin; Acetic acid, indolyl

Chemical Name: Indole-3-Acetic Acid

Chemical Formula: C₁₀H₉NO₂

Composition and Information on Ingredients

Name	S.K.U	% by Weight
INDOLE-3-ACETIC ACID	GCS-2357	100

Hazards Identification

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

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

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...).

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards:
Not available.

Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Handling and Storage

Precautions:

Keep locked up.. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage:

Light sensitive. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

Exposure Controls/Personal Protection

Engineering Controls:

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.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Physical and Chemical Properties

Physical state and appearance: Solid. (Crystals solid.)

Odor : Not available.

Taste : Not available.

Molecular Weight : 175.18 g/mole

Color : White.

pH (1% soln/water) : Not available.

Boiling Point : Not available.

Melting Point	: 168°C (334.4°F) - 170 C (338 F)
Critical Temperature	: Not available.
Specific Gravity	: Not available.
Vapor Pressure	: Not applicable.
Vapor Density	: 5 (Air = 1)
Volatility	: 0% (v/v).
Odor Threshold	: Not available.
Water/Oil Dist. Coeff.	: Not available.
Ionicity (in Water)	: Not available.
Dispersion Properties	: See solubility in water, diethyl ether, and acetone.
Solubility: Soluble in diethyl ether, acetone. Very slightly soluble in cold water, hot water. Freely soluble in alcohol.	

Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature:

Not available.

Conditions of Instability:

Not available.

Incompatibility with various substances: Reactive with acids, alkalis. Corrosivity: Not available.

Special Remarks on Reactivity:

Not available. Special Remarks

on Corrosivity: Not available.

Polymerization: Will not occur

Toxicological Information

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50) : >500 mg/kg [Rat].

Chronic Effects on Humans: MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of

ingestion, of inhalation. Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May affect genetic material. May cause cancer based on animal data. No human data found at this time. May cause adverse reproductive effects (fetotoxicity) and birth defects based on animal data. No human data found at this time.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause digestive tract disturbances. The toxicological properties of this substance have not been fully investigated.

Toxicological Data on Ingredients: Indole-3-acetic acid: ORAL (LD50): Acute: > 500 mg/kg [Rat].

Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation:

The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Transformation Information

Land transport (ADR-RID)

General information : Not regulated.

Sea transport (IMDG) [English only]

General information : Not regulated.

Air transport (ICAO-IATA) [English only]
General information : Not regulated.

Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Indole-3-acetic acid

Other Regulations:

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): R22- Harmful if swallowed. R36/38- Irritating to eyes and skin. R40- Possible risks of irreversible effects. S2- Keep out of the reach of children. S24/25- Avoid contact with skin and eyes. S36/37- Wear suitable protective clothing and gloves. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.



Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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