



**INDENTA**<sup>TM</sup>  
**Chemicals (India) Pvt. Ltd.**  
**(ISO 9001:2008 Certified Company)**



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## Material Safety Data Sheet

### Ammonium borate tetrahydrate

#### SECTION 1.1 – PRODUCT IDENTIFICATION

**Product Name** : Ammonium borate tetrahydrate  
**Molecular Formula** :  $H_8B_4N_2O_7 \cdot 4H_2O$   
**Molecular Weight** : 263.38 g/mol.  
**CAS No.** : 12228-87-4

#### SECTION: 1.2 – COMPANY IDENTIFICATION

**Company Name:** Indenta Chemicals (India) Pvt. Ltd.

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#### SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS #	% by Weight
Ammonium borate tetrahydrate	12228-87-4	100

Toxicological Data on Ingredients:

#### SECTION 3: HAZARD IDENTIFICATION

**Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Specific target organ toxicity - single exposure (Category 3), H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Label elements**

**Labelling according Regulation (EC) No 1272/2008**

Signal word Warning

Hazard statement(s)

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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

Supplemental Hazard

Statements none

#### **Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **SECTION 4: FIRST AID MEASURES**

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#### **Description of first aid measures**

##### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

##### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

##### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

##### **Most important symptoms and effects, both acute and delayed**

Toxicity reported for borates in humans: ingestion or absorption may cause nausea, vomiting, diarrhoea, abdominal cramps, and erythematous lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma. Death has been reported to occur in infants from less than 5 grams and in adults from 5 to 20 grams.

##### **Indication of any immediate medical attention and special treatment needed**

No data available

### **SECTION 5: FIRE AND EXPLOSION DATA**

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#### **Extinguishing media**

##### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### **Special hazards arising from the substance or mixture**

nitrogen oxides (NO<sub>x</sub>), Borane/boron oxides

##### **Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

##### **Further information**

No data available

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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#### **Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

##### **Environmental precautions**

Do not let product enter drains.

##### **Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed

containers for disposal.

#### Reference to other sections

For disposal see section 13

## SECTION 7: HANDLING AND STORAGE

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### Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

### Specific end uses

No data available

## SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

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### Components with workplace control parameters

#### Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686EEC and the standard EN 374 derived from it.

##### Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### Information on basic physical and chemical properties

a) **Appearance Form:** solid

b) **Odour** No data available

c) **Odour Threshold** No data available

d) **PH** No data available

e) **Melting point/freezing point** No data available

f) **Initial boiling point and boiling range** No data available

g) **Flash point** Not applicable

h) **Evaporation rate** No data available

- i) **Flammability (solid, gas)** No data available  
 j) **Upper/lower flammability or explosive limits** No data available  
 k) **Vapour pressure** No data available  
 l) **Vapour density** No data available  
 m) **Relative density** 2.367 g/cm<sup>3</sup>  
 n) **Water solubility** No data available  
 o) **Partition coefficient: noctanol/water** No data available  
 p) **Auto-ignition temperature** No data available  
 q) **Decomposition temperature** No data available  
 r) **Viscosity** No data available  
 s) **Explosive properties** No data available  
 t) **Oxidizing properties** No data available

## SECTION 10: STABILITY AND REACTIVITY

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### Reactivity

No data available

### Chemical stability

No data available

### Possibility of hazardous reactions

No data available

### Conditions to avoid

No data available

### Incompatible materials

Potassium, Acid anhydrides

### Hazardous decomposition products

Other decomposition products - no data available

## SECTION 11: TOXICOLOGICAL INFORMATION

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### UN number

ADR/RID: -

IMDG: -

IATA: -

### UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

### Packaging group

ADR/RID: -

IMDG: -

IATA: -

### Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### Special precautions for user

No data available

## SECTION 12: ECOLOGICAL INFORMATION

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### Toxicity

No data available

### Persistence and degradability

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

No data available

**Other adverse effects**

No data available

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**SECTION 13: DISPOSAL CONSIDERATION**

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**Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

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**SECTION 14: TRANSPORT INFORMATION**

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**DOT Classification:** CLASS 3: Flammable liquid. Class 8: Corrosive material

**Identification:** Acetic Acid, Glacial UNNA: 2789 PG: II

**Special Provisions for Transport:** Not available.

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**SECTION 15: OTHER REGULATORY INFORMATION**

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**Safety, health and environmental regulations/legislation specific for the substance or mixture**

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

**Chemical safety assessment**

For this product a chemical safety assessment was not carried out

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**SECTION 16: ADDITIONAL INFORMATION**

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This information is provided for documentation purposes only.

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