

## Material Safety Data Sheet Ammonium metavanadate

### SECTION 1.1 – PRODUCT IDENTIFICATION

**Product Name** : Ammonium metavanadate  
**Molecular Formula** :  $\text{NH}_4\text{VO}_3$   
**Molecular Weight** : 116.98 g/mole  
**CAS No.** : 7803-55-6

### SECTION: 1.2 COMPANY IDENTIFICATION

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

**Address:** 117, The Summit Business Bay, Opp Cinemax, Off. Sir M.V. Road, Near WEH Metro Station, Andheri (E), Mumbai 400 093, India

**Telephone #:** +91-22-26849600

**Fax #:** +91-22-26849060

### SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS #	% by Weight
Ammonium metavanadate	7803-55-6	100

**Toxicological Data on Ingredients:** No Data Available

### SECTION 3: HAZARD IDENTIFICATION

#### 3.1 Classification of the substance or mixture

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

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 4), H332

Eye irritation (Category 2), H319

Specific target organ toxicity - repeated exposure, Inhalation (Category 1), Respiratory Tract, H372

Long-term (chronic) aquatic hazard (Category 2), H411

#### 3.2 Label elements

##### Labelling according Regulation (EC) No



**Pictogram**

**Signal word**

Danger

**Hazard statement(s)**

H301

Toxic if swallowed.

### Indenta Chemicals (India) Pvt. Ltd.

Office: 117 The Summit Business Bay, Near WEH Metro Station, Opp. Cinemax Theatre, Off. Andheri Kurla Road, Andheri (E), Mumbai 400 093.  
 Phone : +91-22-2684 9600 | Fax : +91-22-2684 9060 | Email: indenta@indenta.com | Website : www.indenta.com

Unit 1: Plot No. 1405, GIDC Sarigam, Dist. Valsad, Gujarat – 396155

Unit 2: Building No. 73, Gala No. 7, Indian Corporation Compound, Village Gundavli, Mankoli Naka, Bhiwandi, Thane - 421302



H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H372	Causes damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.
H411	Toxic to aquatic life with long lasting effects.

**Precautionary statement(s)**

P273	Avoid release to the environment.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/ attention if you feel unwell.

Supplemental Hazard

Statements none

**3.3 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****4.1 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. Take victim immediately to hospital. 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.

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

The most important known symptoms and effects are described in the labelling (see section 3.2) and/or in section 11

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

No data available

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

Nitrogen oxides (NO<sub>x</sub>), Vanadium/vanadium oxides

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

No data available

## SECTION 6: ACCIDENTAL RELEASE MEASURES

---

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

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

### 6.3 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.

### 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: HANDLING AND STORAGE

---

### 7.1 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.

For precautions see section 3.2.

### 7.2 Conditions for safe storage, including any incompatibilities

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

Moisture sensitive.

## SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

---

### 8.1 Control parameters

#### Components with workplace control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses 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 Regulation (EU) 2016/425 and the standard EN 374 derived from it.

**Full contact**

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril®

**Splash contact**

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril®

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**

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.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

<b>a) Appearance</b>	Form: solid
<b>b) Odor</b>	odourless
<b>c) Odor Threshold</b>	No data available
<b>d) pH</b>	7 at 5,1 g/l at 20 °C
<b>e) Melting point/freezing point</b>	Melting point: 200 °C - (decomposition)
<b>f) Initial boiling point and boiling range</b>	Not applicable
<b>g) Flash point</b>	does not flash
<b>h) Evaporation rate</b>	No data available
<b>i) Flammability (solid,gas) flammability or explosive limits</b>	No data available
<b>k) Vapor pressure</b>	No data available
<b>l) Vapor density</b>	No data available
<b>m) Relative density</b>	2,32 g/cm <sup>3</sup> at 25 °C

n) Water solubility	7,81 g/l at 20 °C - OECD Test Guideline 105
<b>o) Partition coefficient:</b>	
n-octanol/water	No data available
<b>p) Autoignition temperature</b>	No data available
<b>q) Decomposition temperature</b>	> 150 °C -
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available
<b>9.2 Other safety information</b>	
Bulk density	1.000 kg/m <sup>3</sup>

## SECTION 10: STABILITY AND REACTIVITY

---

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NO<sub>x</sub>),

Vanadium/vanadium oxides

In the event of fire: see section 5

## SECTION 11: TOXICOLOGICAL INFORMATION

---

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 169 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - 4 h - 2,5 mg/l

(OECD Test Guideline 403)

LD50 Dermal - Rat - > 2.500 mg/kg

(OECD Test Guideline 402)

LD50 Intraperitoneal - Rat - 18 mg/kg

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation

(OECD Test Guideline 405)

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: 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

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

Inhalation - Causes damage to organs through prolonged or repeated exposure. -

Respiratory Tract

**Aspiration hazard**

No data available

**Additional Information**

RTECS: YW0875000

Headache, Tremors, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**SECTION 12: ECOLOGICAL INFORMATION**

---

**12.1 Toxicity**

Toxicity to fish

LC50 - Ictalurus catus (catfish) - 2,6 mg/l - 96 h

Remarks: (ECOTOX Database)

Toxicity to daphnia  
and other aquatic  
invertebrates

Remarks: No data available(Ammonium oxido(dioxo)vanadium)

Toxicity to algae

Remarks: No data available(Ammonium oxido(dioxo)vanadium)

Toxicity to bacteria

Remarks: No data available(Ammonium oxido(dioxo)vanadium)

**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**

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.

**12.6 Other adverse effects**

Toxic to aquatic life with long lasting effects.

No data available.

**SECTION 13: DISPOSAL CONSIDERATION**

---

**13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped

with an afterburner and scrubber. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

#### **Contaminated packaging**

Dispose of as unused product.

### **SECTION 14: TRANSPORT INFORMATION**

---

#### **14.1 UN number**

ADR/RID: - 2859                      IMDG: - 2859                      IATA: - 2859

#### **14.2 UN proper shipping name**

ADR/RID: AMMONIUM METAVANADATE

IMDG: AMMONIUM METAVANADATE

IATA: Ammonium metavanadate

#### **14.3 Transport hazard class(es)**

ADR/RID: - 6.1                      IMDG: -6.1                      IATA: -6.1

#### **14.4 Packaging group**

ADR/RID: - II                      IMDG: - II                      IATA: -II

#### **14.5 Environmental hazards**

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

#### **14.6 Special precautions for user**

No data available

### **SECTION 15: OTHER REGULATORY INFORMATION**

---

#### **15.1 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.

#### **15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out.

### **SECTION 16: ADDITIONAL INFORMATION**

---

This information is provided for documentation purposes only.

The information contained in this Certificate of Analysis and Material Safety Data Sheet is obtained from current and reliable sources. The information contained herein is true and to the best of Indenta Chemicals (India) Pvt. Ltd. knowledge. Nothing herein should be interpreted as a recommendation to infringe existing patents or violate any Laws or Regulation. Final determination of the suitability of the material is the sole responsibility of the user. Customers should purchase products from Indenta Chemicals (India) Pvt. Ltd. with the clear understanding that all products must be used at the customer's own discretion and only after referencing Material Safety Data Sheets (MSDS) and all other relevant technical information specific to the product. Indenta Chemicals (India) Pvt. Ltd. shall not be held responsible for any damages to property or for any adverse physical effects (including injury or bodily harm) caused by insufficient knowledge or the improper use of a product. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As with any manufacturing process, Indenta Chemicals (India) Pvt. Ltd. strongly recommends small lab scale testing for evaluation purposes prior to full commercial manufacturing. The information on the Indenta Chemicals (India) Pvt. Ltd. website is obtained from current and reliable sources but makes no representation as to its comprehensiveness or accuracy. Nothing contained herein should be considered as a recommendation by Indenta Chemicals (India) Pvt. Ltd. as to the fitness for any use. As the ordinary or otherwise use(s) of this product is outside the control of Indenta Chemicals (India) Pvt. Ltd., no representation or warranty, expressed or implied is made as to the effect(s) of such use(s) (including

damage or injury), or the results obtained. The liability of Indenta Chemicals (India) Pvt. Ltd. is limited to the value of the goods and does not include any consequential loss. Indenta Chemicals (India) Pvt. Ltd. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon.

