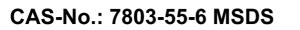
# AMMONIUM METAVANADATE EXTRA PURE MSDS





# MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

| Chemical structure      | NH₄VC       |
|-------------------------|-------------|
| Product code            | : 01250     |
| CAS-No.                 | : 7803-55-6 |
|                         | :           |
| Product form            | : Substance |
| 1.1. Product identifier |             |
|                         |             |

| 1.2.     | Relevant identified uses of the substance or mixture and uses advised against |
|----------|---|
| 1 - Am - | The output in the substance of mixture and acco dational against              |

#### 1.2.1. Relevant identified uses

Use of the substance/mixture

: Laboratory chemicals, Manufacture of substances

Ja

### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

SPAN LAB UNIT NO. 14,SKY INDUSTRIAL ESTATE,WALIV, VASAI (E) 401208 Mumbai - INDIA PH: +91 9820509929 info@spanlab.in www.spanlab.in

#### SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

H301 Acute toxicity (oral), Category 3 Acute toxicity (inhal.), H330 Category 1 Skin corrosion/irritation, H315 Category 2 Serious eye damage/eye H319 irritation, Category 2 Specific target organ H335 toxicity - Single exposure, Category 3, Respiratory tract irritation

Full text of hazard classes and H-statements : see section 16

Safety Data Sheet

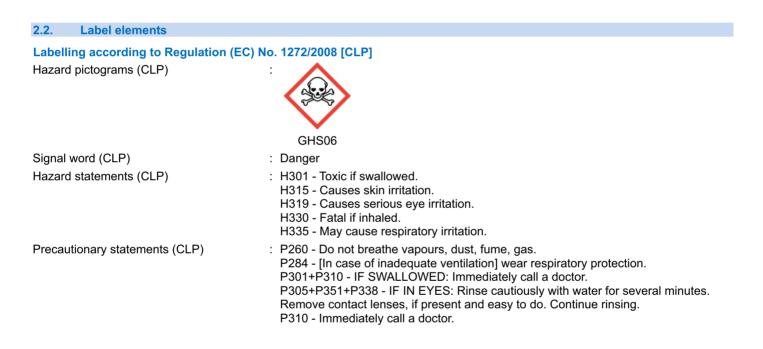
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

T; R25 Xn; R20 Xi; R36 Xi; R37 Full text of B. phr

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects No additional information available



#### 2.3. Other hazards

No additional information available

| SECTION 3: Composition/information on ingredients |                     |  |
|---|---------------------|--|
| 3.1.  | .1. Substances      |  |
| Name  |                     |  |
| CAS-N   | CAS-No. : 7803-55-6 |  |

Full text of R- and H-statements: see section 16

| 3.2.      | Mixtures |            |      |
|-----------|----------|------------|------|
| Not appl  | icable   |            |      |
| www.spanl | lab.in   | 25/04/2016 | 2/11 |

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| SECTION 4: First aid measures   |  |
|---|--|
|   |  |
| 4.1. Description of first aid measures<br>First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. Call a POISON   |
|   | CENTER/doctor if you feel unwell.  |
| First-aid measures after skin contact   | : Wash with plenty of water/ Get medical advice/attention.   |
| First-aid measures after eye contact  | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. |
| First-aid measures after ingestion  | : Rinse mouth. Get medical advice/attention.   |
| 4.2. Most important symptoms and e  | fects, both acute and delayed  |
| Symptoms/effects after inhalation   | : May cause respiratory irritation.  |
| Symptoms/effects after skin contact   | : Causes skin irritation.  |
| Symptoms/effects after eye contact  | : Causes serious eye irritation.   |
| Symptoms/effects after ingestion  | : Toxic if swallowed.  |
| 4.3. Indication of any immediate med  | ical attention and special treatment needed  |
| Treat symptomatically.  |  |
| SECTION 5: Firefighting measures  |  |
| 5.1. Extinguishing media  |  |
| Suitable extinguishing media  | : Carbon dioxide. Dry powder. Foam. Water spray.   |
| Unsuitable extinguishing media  | : Do not use a heavy water stream.   |
| 5.2. Special hazards arising from the   | substance or mixture   |
| No additional information available   |  |
| 5.3. Advice for firefighters  |  |
| Protection during firefighting  | : Do not enter fire area without proper protective equipment, including respiratory protection.  |
| SECTION 6: Accidental release measures  |  |
| 6.1. Personal precautions, protective   | equipment and emergency procedures   |
| 6.1.1. For non-emergency personnel  |  |
| Emergency procedures  | : Evacuate unnecessary personnel.  |
| 6.1.2. For emergency responders   |  |
| Protective equipment  | : Use personal protective equipment as required.   |
| Emergency procedures  | : Ventilate area.  |
| 6.2. Environmental precautions  |  |
| Avoid release to the environment.   |  |
| 6.3. Methods and material for contain   | ment and cleaning up   |
| Methods for cleaning up   | : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.       |
| 6.4. Reference to other sections  |  |
| No additional information available   |  |
| SECTION 7: Handling and storage   |  |
|   |  |
| 7.1. Precautions for safe handling  |  |
| Precautions for safe handling   | : Avoid contact with skin and eyes. Use only outdoors or in a well-ventilated area. Do not breathe vapours.  |

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| Hygiene measures          | Do not eat, drink or smoke when using this product. Wash hands and other exposed<br>areas with mild soap and water before eating, drinking or smoking and when leaving<br>work. |
|---------------------------|---|
| 7.2. Conditions for s     | afe storage, including any incompatibilities  |
| Storage conditions        | : Store in a well-ventilated place. Keep container tightly closed.  |
| 7.3. Specific end use     | e(s)  |
| No additional information | available   |
| SECTION 8: Exposure c     | ontrols/personal protection   |
| 8.1. Control parame       | ers   |

No additional information available

| 8.2. Exposure controls  |                                      |
|---|--------------------------------------|
| Hand protection   | : Protective gloves                  |
| Eye protection  | : Chemical goggles or safety glasses |
| Skin and body protection  | : Wear suitable protective clothing  |
| Respiratory protection : [In case of inadequate ventilation] wear respiratory protection. |                                      |
| <b>SECTION 9: Physical and chemical pro</b>   | perties                              |
| 9.1. Information on basic physical a  | and chemical properties              |
| Physical state  | : Solid                              |
| Colour  | : White or yellowish-white.          |
| Odour   | : odourless.                         |
| Odour threshold   | : No data available                  |
| рН  | : No data available                  |
| Relative evaporation rate (butylacetate=1)  | : No data available                  |
| Melting point   | : 200 °C                             |
| Freezing point  | : No data available                  |
| Boiling point   | : No data available                  |
| Flash point   | : No data available                  |
| Auto-ignition temperature   | : No data available                  |
| Decomposition temperature   | : No data available                  |
| Flammability (solid, gas)   | : No data available                  |
| Vapour pressure   | : No data available                  |
| Relative vapour density at 20 °C  | : No data available                  |

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| Relative density     | : No data available      |
|----------------------|--------------------------|
| Solubility           | : Water: Slight (0.1-1%) |
| Log Pow              | : No data available      |
| Viscosity, kinematic | : No data available      |
| Viscosity, dynamic   | : No data available      |
| Explosive properties | : No data available      |
| Oxidising properties | : No data available      |
| Explosive limits     | : No data available      |

| 9.2.     | Other information                 |   |
|----------|-----------------------------------|---|
| No addi  | tional information available      |   |
| SECTIC   | DN 10: Stability and reactivity   |   |
|          |                                   |   |
| 10.1.    | Reactivity                        |   |
| No addi  | tional information available      |   |
| 10.2.    | Chemical stability                |   |
| Stable ι | under normal conditions.          |   |
| 10.3.    | Possibility of hazardous reaction | 15  |
| No addi  | tional information available      |   |
| 10.4.    | Conditions to avoid               |   |
| Direct s | unlight. Air contact. Moisture.   |   |
| 10.5.    | Incompatible materials            |   |
| No addi  | tional information available      |   |
| 10.6.    | Hazardous decomposition produ     | icts  |
| No addi  | tional information available      |   |
| SECTIO   | ON 11: Toxicological information  |   |
| 11.1.    | Information on toxicological effe | cts   |
| Acute to |                                   | : Oral: Toxic if swallowed. Inhalation: Fatal if inhaled. |

| Skin corrosion/irritation         | : Causes skin irritation.           |
|-----------------------------------|-------------------------------------|
| Serious eye damage/irritation     | : Causes serious eye irritation.    |
| Respiratory or skin sensitisation | : Not classified                    |
| Germ cell mutagenicity            | : Not classified                    |
| Carcinogenicity                   | : Not classified                    |
|                                   |                                     |
| Reproductive toxicity             | : Not classified                    |
| STOT-single exposure              | : May cause respiratory irritation. |
|                                   |                                     |
| STOT-repeated exposure            | : Not classified                    |
|                                   |                                     |

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| Aspiration hazard  | : Not classified   |
|--|--|
| Potential adverse human health effects and symptoms                        | : Toxic if swallowed.  |
| SECTION 12: Ecological information   |  |
| 12.1. Toxicity   |  |
| No additional information available  |  |
|  |  |
|  |  |
|  |  |
| 42.0 Development and de sue debilities                                     |  |
| 12.2. Persistence and degradability<br>No additional information available |  |
|  |  |
| 12.3. Bioaccumulative potential  |  |
| No additional information available  |  |
|  |  |
| 12.4. Mobility in soil   |  |
| No additional information available  |  |
|  |  |
| 12.5. Results of PBT and vPvB asses  | sment  |
| No additional information available  |  |
|  |  |
| 12.6. Other adverse effects  |  |
| No additional information available  |  |
| SECTION 13: Disposal considerations  |  |
| 13.1. Waste treatment methods  |  |
| Product/Packaging disposal   | : Dispose of contents/container to hazardous or special waste collection point, in |
| recommendations  | accordance with local, regional, national and/or international regulation.         |
| Ecology - waste materials  | : Hazardous waste due to toxicity.   |
| SECTION 14: Transport information  |  |

In accordance with ADR / RID / IMDG / IATA / ADN

| 14.1. UN number               |                         |
|-------------------------------|-------------------------|
| UN-No. (ADR)                  | : 2859                  |
| UN-No. (IMDG)                 | : 2859                  |
| UN-No. (IATA)                 | : 2859                  |
| UN-No. (ADN)                  | : 2859                  |
| UN-No. (RID)                  | : 2859                  |
| 14.2. UN proper shipping name |                         |
| Proper Shipping Name (ADR)    | : AMMONIUM METAVANADATE |
| Proper Shipping Name (IMDG)   | : AMMONIUM METAVANADATE |
|                               |                         |

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| Proper Shipping Name (IATA)           | : Ammonium metavanadate                         |
|---------------------------------------|---|
| Proper Shipping Name (ADN)            | : AMMONIUM METAVANADATE                         |
| Proper Shipping Name (RID)            | : AMMONIUM METAVANADATE                         |
| Transport document description (ADR)  | : UN 2859 AMMONIUM METAVANADATE, 6.1, II, (D/E) |
| Transport document description (IMDG) | : UN 2859 AMMONIUM METAVANADATE, 6.1, II        |
| Transport document description (IATA) | : UN 2859 Ammonium metavanadate, 6.1, II        |
| Transport document description (ADN)  | : UN 2859 AMMONIUM METAVANADATE, 6.1, II        |
| Transport document description (RID)  | : UN 2859 AMMONIUM METAVANADATE, 6.1, II        |
|                                       |   |

| 14.3.               | Transport hazard class(es) |       |  |
|---------------------|----------------------------|-------|--|
| ADR                 |                            |       |  |
| Transp              | ort hazard class(es) (ADR) | : 6.1 |  |
| Danger labels (ADR) |                            | : 6.1 |  |
| Dange               | labels (ADR)               | : 6.1 |  |



### IMDG

| Transport hazard class(es) (IMDG) |  |
|-----------------------------------|--|
| Danger labels (IMDG)              |  |





## ΙΑΤΑ

| Transport hazard  | class(es) (IATA) |
|-------------------|------------------|
| Hazard labels (IA | TA)              |





Transport hazard class(es) (ADN) Danger labels (ADN)

| : | 6.1 |
|---|-----|
| : | 6.1 |



## RID

| Transport hazard class(es) (RID) | : | 6.1 |
|----------------------------------|---|-----|
| Danger labels (RID)              | : | 6.1 |

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:



| 14.4. Packing group  |      |
|----------------------|------|
| Packing group (ADR)  | : 11 |
| Packing group (IMDG) | : 11 |
| Packing group (IATA) | : 11 |
| Packing group (ADN)  | : 11 |
| Packing group (RID)  | : 11 |
|                      |      |

| 14.5. Environmental hazards   |  |
|-------------------------------|--|
| Dangerous for the environment | : No                                     |
| Marine pollutant              | : No                                     |
| Other information             | : No supplementary information available |

## 14.6. Special precautions for user

| - Overland transport  |   |             |
|---|---|-------------|
| Classification code (ADR)   | : | Т5          |
| Limited quantities (ADR)  | : | 500g        |
| Excepted quantities (ADR)   | : | E4          |
| Packing instructions (ADR)  | : | P002, IBC08 |
| Special packing provisions (ADR)  | : | B4          |
| Mixed packing provisions (ADR)  | : | MP10        |
| Portable tank and bulk container instructions (ADR)                     | : | Т3          |
| Portable tank and bulk container special provisions (ADR)               | : | TP33        |
| Tank code (ADR)   | : | SGAH        |
| Tank special provisions (ADR)   | : | TU15, TE19  |
| Vehicle for tank carriage   | : | AT          |
| Transport category (ADR)  | : | 2           |
| Special provisions for carriage - Packages (ADR)                        | : | V11         |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : | CV13, CV28  |
| Special provisions for carriage - Operation (ADR)                       | : | S9, S19     |
| Hazard identification number (Kemler No.)                               | : | 60          |
| Orange plates   | : | 60          |
|   |   | 2859        |
| Tunnel restriction code (ADR)   | : | D/E         |
| EAC code  | : | 2Z          |
| - Transport by sea  |   |             |
| Packing instructions (IMDG)   | : | P002        |
| IBC packing instructions (IMDG)   | : | IBC08       |
| IBC special provisions (IMDG)   | : | B21, B4     |
| Tank instructions (IMDG)  | : | Т3          |
| Tank special provisions (IMDG)  | : | TP33        |

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| according to Regulation (EC) No. 1907/2006 (REACH) wi                   | th its amendment Regulation (EU) 2015/830   |
|---|---|
| EmS-No. (Fire)  | : F-A   |
| EmS-No. (Spillage)  | : S-A   |
| Stowage category (IMDG)   | : A   |
| Segregation (IMDG)  | : SG6, SG8, SG10, SG12  |
| Properties and observations (IMDG)                                      | : White crystalline powder. Slightly soluble in water. May act as an oxidizing substance. Toxic if swallowed, by skin contact or by inhalation. |
| MFAG-No   | : 154   |
| - Air transport   |   |
| PCA Excepted quantities (IATA)  | : E4  |
| PCA Limited quantities (IATA)   | : Y644  |
| PCA limited quantity max net quantity (IATA)                            | : 1kg   |
| PCA packing instructions (IATA)   | : 669   |
| PCA max net quantity (IATA)   | : 25kg  |
| CAO packing instructions (IATA)   | : 676   |
| CAO max net quantity (IATA)   | : 100kg   |
| ERG code (IATA)   | : 6L  |
| - Inland waterway transport   |   |
| Classification code (ADN)   | : T5  |
| Special provisions (ADN)  | : 802   |
| Limited quantities (ADN)  | : 500 g   |
| Excepted quantities (ADN)   | : E4  |
| Equipment required (ADN)  | : PP, EP  |
| Number of blue cones/lights (ADN)                                       | : 2   |
| - Rail transport  |   |
| Classification code (RID)   | : T5  |
| Excepted quantities (RID)   | : E4  |
| Packing instructions (RID)  | : P002, IBC08   |
| Special packing provisions (RID)  | : B4  |
| Mixed packing provisions (RID)  | : MP10  |
| Portable tank and bulk container<br>instructions (RID)                  | : T3  |
| Portable tank and bulk container special<br>provisions (RID)            | : TP33  |
| Tank codes for RID tanks (RID)  | : SGAH  |
| Special provisions for RID tanks (RID)                                  | : TU15  |
| Transport category (RID)  | : 2   |
| Special provisions for carriage – Packages (RID)                        | : W11   |
| Special provisions for carriage - Loading, unloading and handling (RID) | : CW13, CW28, CW31  |
| Colis express (express parcels) (RID)                                   | : CE9   |
| Hazard identification number (RID)                                      | : 60  |
|   |   |

**14.7.** Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

**SECTION 15: Regulatory information** 

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

15.1.1. EU-Regulations

### No REACH Annex XVII restrictions

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AMMONIUM METAVANADATE Extra Pure is not on the REACH Candidate List AMMONIUM METAVANADATE Extra Pure is not on the REACH Annex XIV List

### 15.1.2. National regulations

### Germany

12th Ordinance Implementing the Federal : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance) Immission Control Act - 12.BImSchV

### Netherlands

| SZW-lijst van kankerverwekkende stoffen   | : The substance is not listed |
|---|-------------------------------|
| SZW-lijst van mutagene stoffen  | : The substance is not listed |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding         | : The substance is not listed |
| NIET-limitatieve lijst van voor de<br>voortplanting giftige stoffen –<br>Vruchtbaarheid | : The substance is not listed |
| NIET-limitatieve lijst van voor de<br>voortplanting giftige stoffen – Ontwikkeling      | : The substance is not listed |

### Denmark

| Recommendations Danish Regulation | : Young people below the age of 18 years are not allowed to use the product |
|-----------------------------------|---|
|-----------------------------------|---|

#### 15.2. Chemical safety assessment

No additional information available

### **SECTION 16: Other information**

### Full text of R-, H- and EUH-statements:

| Acute Tox. 1 (Inhalation) | Acute toxicity (inhal.), Category 1  |
|---------------------------|--|
| Acute Tox. 3 (Oral)       | Acute toxicity (oral), Category 3  |
| Eye Irrit. 2              | Serious eye damage/eye irritation, Category 2  |
| Skin Irrit. 2             | Skin corrosion/irritation, Category 2  |
| STOT SE 3                 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H301                      | Toxic if swallowed.  |
| H315                      | Causes skin irritation.  |
| H319                      | Causes serious eye irritation.   |
| H330                      | Fatal if inhaled.  |
| H335                      | May cause respiratory irritation.  |
| R20                       | Harmful by inhalation  |
| R25                       | Toxic if swallowed   |

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| R36 | Irritating to eyes               |
|-----|----------------------------------|
| R37 | Irritating to respiratory system |
| Т   | Toxic                            |
| Xi  | Irritant                         |
| Xn  | Harmful                          |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product