



Safety Data Sheet

Ammonium metavanadate

Section 1: Chemical Product and Company Identification

Product Name: Ammonium metavanadate

Contact Information:

Catalog Codes:

CAS#: 7803-55-6

Email: info@drm-chem.com

RTECS: -

Address: #7, Afshar javan Alley, Sohrevardi St, Tehran, Iran

TSCA: -

post code: 1551818111

Synonym: Ammonium monovanadate

Tehran Sales: +98 21 88177760

Chemical Name: Ammonium metavanadate

Order Online: Drm-chem.com

Chemical Formula: NH_4VO_3

Section 2: Composition and Information on Ingredients

Composition:

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

Toxicological Data on Ingredients: LC50 (Limanda limanda): 27,8 mg/l.

Section 3: Hazards Identification

Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 3	H301: Toxic if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Reproductive toxicity, Category 2	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
Specific target organ toxicity - repeated exposure, Category 1, Respiratory Tract	H372: Causes damage to organs through prolonged or repeated exposure if inhaled.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word	: Danger	
Hazard statements	: H301	Toxic if swallowed.
	H319	Causes serious eye irritation.
	H332	Harmful if inhaled.
	H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
	H372	Causes damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.
	H411	Toxic to aquatic life with long lasting effects.
	Prevention:	
Precautionary Statements	: P202	Do not handle until all safety precautions have been read and understood.
	P260	Do not breathe dust.
	P273	Avoid release to the environment.
	Response:	
	P301 + P310 IF SWALLOWED:	Immediately call a

POISON CENTER/ doctor.

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.

Reduced Labelling (<= 125 ml)

Hazard pictograms :



Signal word

Danger

Hazard Statements

H372

Causes damage to organs through prolonged or repeated exposure if inhaled.

H301

Toxic if swallowed.

H361fd

Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary Statements

P202

Do not handle until all safety precautions have been read and understood.

P260

Do not breathe dust.

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 4: First Aid Measures

Description of first aid measures

General advice	: Show this safety data sheet to the doctor in attendance.
If inhaled	: After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.
In case of skin contact	: In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.
In case of eye contact	: After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
If swallowed	: If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 3) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

Section 5: Fire and Explosion Data

Extinguishing media

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Specific hazards during fire fighting	: Not combustible.
Hazardous combustion products	: Ambient fire may liberate hazardous vapours. : Nitrogen oxides (NOx) Vanadium/vanadium oxides
Advice for firefighters	
Special protective equipment 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.
Further information	: Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions : Advice for non-emergency personnel:
Avoid generation and inhalation of dusts in all circumstances.
Avoid substance contact.
Ensure adequate ventilation.
Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Environmental Precautions : Do not let product enter drains.

Methods and materials for containment and cleaning up

Methods for cleaning up : Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up carefully. Dispose of properly. Clean up affected area.
Avoid generation of dusts.

Reference to other sections

For disposal considerations see section 13.

Section 7: Handling and Storage

Precautions for safe handling

Advice on safe handling : Work under hood. Do not inhale substance/mixture.

Hygiene measures : Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 3.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions : Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

Storage class (TRGS 510) : 6.1B, Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

Further information on storage stability : Moisture sensitive.

Section 8: Exposure Controls/Personal Protection

Control parameters

Occupational Exposure Limits

Exposure controls

Personal protective equipment

Eye/face protection : Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Safety glasses

Hand protection

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0,11 mm
Protective index : Full contact
Manufacturer : KCL 741 Dermatril® L

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0,11 mm
Protective index : Splash contact
Manufacturer : KCL 741 Dermatril® L

Remarks : This recommendation applies only to the product

stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D36124 Eichenzell,

Internet: www.kcl.de)

Skin and body protection : protective clothing

Respiratory protection : required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter : Filter type P3

type:

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Environmental exposure controls

Advice : Do not let product enter drains.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state : solid

Form : crystalline

Color : colourless

Odor : odourless

Melting point : 200 °C
(decomposition)

: Not applicable

Flammability : The product is not flammable.

Upper explosion limit /
Upper flammability limit : No data available

Lower explosion limit /
Lower flammability limit : No data available

Flash point	: Not applicable
Autoignition temperature	: not combustible
Decomposition Temperature	: > 150 °C
pH	: 7 (20 °C) Concentration: 5,1 g/l
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Flow time	: No data available
Solubility(ies) Water solubility	: 7,81 g/l (20 °C) pH: 6 Method: OECD Test Guideline 105
Partition coefficient: noctanol/water	: Not applicable for inorganic substances
Vapor pressure	: No data available
Relative density	: 2,32 (20 °C) Method: OECD Test Guideline 109
Density	: 2,32 g/cm ³ (25 °C) Method: lit.
Relative vapour density	: No data available
Other information	
Explosives	: Not classified as explosive.
Oxidizing properties	: none
Burning rate	: No data available
Evaporation rate	: No data available
Molecular weight	: 116,97 g/mol

Section 10: Stability and Reactivity Data

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Hazardous reactions : Violent reactions possible with:
Strong oxidizing agents
acids
Generates dangerous gases or fumes in contact with:

alkalines
Release of:
Ammonia

Conditions to avoid

Conditions to avoid : no information available

Incompatible materials

No data available

Hazardous decomposition products

In the event of fire: see section 5

Section 11: Toxicological Information**Information on toxicological effects****Acute toxicity**

LD50 Oral - Rat - 169,33 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Oral - 169,33 mg/kg

(ATE value derived from LD50/LC50 value)

Acute toxicity estimate Oral - 169,33 mg/kg

(ATE value derived from LD50/LC50 value)

LC50 Inhalation - Rat - male and female - 4 h - 2,51 mg/l - dust/mist

(OECD Test Guideline 403)

Acute toxicity estimate Inhalation - 2,51 mg/l - dust/mist

(ATE value derived from LD50/LC50 value)

LD50 Dermal - Rat - male and female - > 2.500 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes.
(OECD Test Guideline 405)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: S. typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Species: Mouse

Application Route: Inhalation

Method: OECD Test Guideline 475

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

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

Endocrine disrupting properties

Product:

Assessment

: The substance/mixture does not contain
components considered to have endocrine

disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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

Toxicity

Components:

Ammonium monovanadate:

Toxicity to fish : LC50 (Limanda limanda): 27,8 mg/l
End point: mortality
Exposure time: 96 h
Test Type: flow-through test
Analytical monitoring: yes
Remarks: (ECHA)

Toxicity to fish (Chronic toxicity) : NOEC: 0,870 mg/l
End point: mortality
Exposure time: 30 d
Species: Clarias batrachus (Walking catfish)
Test Type: semi-static test
Remarks: (ECHA)

Persistence and degradability

Components:

Ammonium monovanadate:

Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

Components:

Ammonium monovanadate:

Partition coefficient: octanol/water : Remarks: Not applicable for inorganic substances

Mobility in soil

No data available

Results of PBT and vPvB assessment

Product:

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.

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

No data available

Other adverse effects

No data available

Section 13: Disposal Considerations

Waste treatment methods

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Section 14: Transport Information

UN number or ID number

ADR : UN 2859
IMDG : UN 2859
IATA : UN 2859

UN proper shipping name

ADR : AMMONIUM METAVANADATE
IMDG : AMMONIUM METAVANADATE
IATA : Ammonium metavanadate

Transport hazard class(es)

	Class	Subsidiary risks
ADR	: 6.1	
IMDG	: 6.1	
IATA	: 6.1	

Packing group

ADR
Packing group : II
Classification Code : T5
Hazard Identification : 60
Number

Labels : 6.1
Tunnel restriction code : (D/E)

IMDG

Packing group : II
Labels : 6.1
EmS Code : F-A, S-A

IATA (Cargo)

Packing instruction (cargo aircraft) : 676
Packing instruction (LQ) : Y644
Packing group : II
Labels : Division 6.1 - Toxic substances

IATA_P (Passenger)

Packing instruction (passenger aircraft) : 669
Packing instruction (LQ) : Y644
Packing group : II
Labels : Division 6.1 - Toxic substances

Environmental hazards

ADR

Environmentally : no
Hazardous

IMDG

Marine pollutant : no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

Section 15: Other Regulatory Information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous : Conditions of restriction for the following entries should be

substances, mixtures and articles (Annex XVII)	considered: Number on list 65: Ammonium monovanadate
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	: Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	E2 ENVIRONMENTAL HAZARDS
Other regulations: Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.	
Chemical safety assessment For this product a chemical safety assessment was not carried out	

Section 16: Other Information

References: Not available

Other Special Considerations: Not available

Created: 04/2026

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the Information for their particular purposes. In no event shall *Drm-chem.com* be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if *Drm-chem.com* has been advised of the possibility of such damages.