1. Identification of the substance/preparation and of the company/undertaking

Identification of the product:
Product number: A5097
Name of material: Ammonium monovanadate
CAS No. : 7803-55-6
Synonyms : Ammonium metavanadate, Vanadic acid, ammonium salt

Importer/distributors identification :

Company	:	ASIA CHEMIE (THAILAND) CO., LTD.
Address	:	44/27 Moo.4 T.Huaykapi A.Muangchonburi, Chonburi, Thailand. 20130
Telephone number	:	+66 3838 7988
Fax number	:	+66 3838 7989
E-mail	:	asiachemie@gmail.com, natchakot@asiachemie.com, natchakot@gmail.com

2. Hazards identification

Classification :
Acute toxicity, Oral, Category 3
Acute toxicity, Inhalation, Category 1
Acute toxicity, Dermal, Category 5
Skin irritation, Category 2
Eye irritation, Category 2A
Specific target organ toxicity – single exposure, Category 3

Hazard Symbol :

Signal word : Danger

Hazard Statements :
H301 : Toxic if swallowed
H313 : May be harmful in contact with skin
H315 : Causes skin irritation
H319: Causes serious eye irritation
H330 : Fatal if inhaled
H335: May cause respiratory irritation
Precautionary Statements :
P260 : Do not breathe dusy / fume / gas / mist / vapours / spray
P284 : Wear repiratory protection
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

3. Composition/information on ingredients

Component	CAS Number	Concentration %
Ammonium Monovanadate	7803-55-6	99~100

4. First aid measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Ingestion: Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
Notes to Physician: Green coloration of the tongue, resulting from the deposition of vanadium salts is an indicator of exposure; however, may be absent even in prolonged exposure.. Treat symptomatically and supportively. Effects may be delayed.

5. Fire-fighting measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.
Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.
Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 0

6. Accidental release measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately,observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Use water spray to disperse the gas/vapor. Provide ventilation.

7. Handling and storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Use only in a chemical fume hood.
Storage: Keep away from heat, sparks, and flame. Do not store near combustible materials. Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

8. Exposure controls/personal protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ammonium monovanadate	none listed	none listed	none listed

OSHA Vacated PELs: Ammonium metavanadate: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

9. Physical and chemical properties

Physical State: Crystalline powder
Appearance: white - slightly yellow

Contact : info@qrec.asia, info@asiachemie.com

Odor: Not available.
pH: Not available.
Vapor Pressure: Negligible.
Vapor Density: Not available.
Evaporation Rate: Negligible.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: 200 deg C
Decomposition Temperature: 200 deg C
Solubility: 6.2 g/l (15 c)
Specific Gravity/Density: 2.3260 g/cm^3
Molecular Formula: NH_4VO_3
Molecular Weight: 116.98

10. Stability and reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation, exposure to moist air or water, excess light.
Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, moisture.
Hazardous Decomposition Products: Oxides of nitrogen, irritating and toxic fumes and gases,vanadium oxide (VOx) gases, ammonia.
Hazardous Polymerization: Will not occur.

11. Toxicological information

RTECS#:
CAS# 7803-55-6: YW0875000
LD50/LC50:
CAS# 7803-55-6:
Inhalation, rat: LC50 = 7800 ug/m3/4H;
Oral, mouse: LD50 = 25 mg/kg;
Oral, rat: LD50 = 58100 ug/kg;
Skin, rat: LD50 = 2102 mg/kg;<BR.
Carcinogenicity:
CAS# 7803-55-6: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information available.
Teratogenicity: Intraperitoneal, hamster: TDLo = 22500 ug/kg (female 5-10 day(s) after conception) Effects on Newborn - sex ratio.; Intraperitoneal, hamster: TDLo = 2820 ug/kg (female 5-10 day(s) after conception) Specific Developmental Abnormalities - musculoskeletal system.
Reproductive Effects: Intraperitoneal, hamster: TDLo = 11280 ug/kg (female 5-10 day(s) after conception) Fertility - post-implantation mortality (e.g. dead and/or resorbed implants per totalnumber of implants) and Effects on Embryo or Fetus - fetal death.;
Neurotoxicity: No information available.
Mutagenicity: Micronucleus Test: Human, Lymphocyte = 10 umol/L; DNA Damage: Human, Lymphocyte = 200 umol/L; Sister Chromatid Exchange: Human, Lymphocyte = 40 umol/L; Sex Chromosome Loss and Nondisjunction: Human, Lymphocyte = 40 umol/L.
Other Studies: No data available.

12. Ecological information

Ecotoxicity: Fish: Goldfish: LC50 = 1.5 - 3.8; 144 Hr; Unspecified
Fish: Goldfish: LC50 = 1.5 - 3.8 mg/L; 144 Hr; unspecified

13. Disposal considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: CAS# 7803-55-6: waste number P119.
RCRA U-Series: None listed.

14. Transport information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	AMMONIUM METAVANADATE				No information available.
Hazard Class:	6.1				
UN Number:	UN2859				
Packing Group:	II				

15. Regulatory information

US FEDERAL
TSCA
CAS# 7803-55-6 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA
CERCLA Hazardous Substances and corresponding RQs
CAS# 7803-55-6: 1000 lb final RQ; 454 kg final RQ
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 7803-55-6: acute.
Section 313
No chemicals are reportable under Section 313.
Clean Air Act:
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 7803-55-6 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.
California No Significant Risk Level: None of the chemicals in this product are listed.
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:
T
Risk Phrases:
R 25 Toxic if swallowed.
R 33 Danger of cumulative effects.
R 36/37/38 Irritating to eyes, respiratory system and skin.
Safety Phrases:
S 22 Do not breathe dust.
S 24/25 Avoid contact with skin and eyes.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
WGK (Water Danger/Protection)
CAS# 7803-55-6: No information available.

Contact : info@qrec.asia, info@asiachemie.com

Canada - DSL/NDSL
CAS# 7803-55-6 is listed on Canada's DSL List.
Canada - WHMIS
This product has a WHMIS classification of D1A, D2B.
Canadian Ingredient Disclosure List
CAS# 7803-55-6 is listed on the Canadian Ingredient Disclosure List.
Exposure Limits
CAS# 7803-55-6: OEL-AUSTRALIA:TWA 0.05 mg(V2O5)/m3 JANUARY 1993 OE L-BELGIUM:TWA 0.05 mg(V2O5)/m3 JANUARY 1993 OEL-DENMARK:TWA 0.03 mg(V2O5)/m3 JANUARY 1993 OEL-FINLAND:TWA 0.5 mg(V2O5)/m3 JANUARY 1993 OEL-FRANCE:TWA 0.05 mg(V2O5)/m3 JANUARY 1993 OEL-GERMANY:TWA 0.05 m g(V2O5)/m3 JANUARY 1993 OEL-HUNGARY:TWA 0.05 mg(V2O5)/m3;STEL 0.1 mg (V205)/m3 JANUARY 1993 OEL-JAPAN:TWA 0.5 mg(V2O5)/m3 JANUARY 1993 OEL-THE NETHERLANDS:TWA 0.5 mg(V2O5)/m3 JANUARY 1993 OEL-THE PHILIPP INES:TWA 0.25 mg(V205)/m3 JANUARY 1993 OEL-POLAND:TWA 0.5 mg(V2O5)/m 3 JANUARY 1993 OEL-SWEDEN:STEL 0.05 mg(V2O5)/m3 JANUARY 1993 OEL-S WEDEN:TWA 0.2 mg(V2O5)/m3 (dust) OEL-SWITZERLAND:TWA 0.05 mg(V2O5)/m 3;STEL 0.25 mg(V2O5)/m3 OEL-TURKEY:TWA 0.5 mg(V2O5)/m3 JANUARY 1993 OEL-UNITED KINGDOM:TWA 0.05 mg(V2O5)/m3 (dust) OEL-UNITED KINGDOM:T WA 0.5 mg(V2O5)/m3 JANUARY 1993

16. Other information

Reason for the revision: General update.
Date: 22/05/2014

Revision #2
Date: 15/10/2019

No warranty, expressed or implied for a particular purpose or otherwise is made, except the products herein discussed comply to the chemical description on the labels. Buyer assumers risks of the use, storage and handling. Producer or distributors shall not be liable for any incidental or consequential damages arising directly or indirectly in connection with the purchase, use, storage or handling of this product. The information contained herein is, to the best of our knowledge, true and accurate. However, all recommendations or suggestions are made without guarantee, since the conditions of use are beyond our control. We disclaim any liability incurred in connection with the use of these data or suggestions.

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