



Version: 1.0

Revision date: 09.12.2019

# **Safety Data Sheet**

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

### **1.1 Product identifier** Trade name/designation: Ammonium Cerric Sulphate Analytical reagent Product No.: A2620 Synonymes: Ammonium ceric sulphate dihydrate, Cerium (IV) ammonium sulphate dihydrate, Tetraammonium cerium tetrakis(sulphate) dihydrate CAS No. 10378-47-9 1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses: General chemical reagent 1.3 Details of the supplier of the safety data sheet Supplier Avantor Performance Materials India Ltd. Street 501, 5th floor, Tiffany Building, Hiranandani Business Park, Postal code/city Thane, Maharashtra - 400607, India 022-41288100 Telephone **Emergency phone number** Telephone 1800105561 **Preparation Information Product Information Compliance** 1.4 E-mail SDS@avantorsciences.com

# **SECTION 2: Hazard identification**

# 2.1 Classification of the substance or mixture

The substance is classified as not hazardous.

# 2.2 Label elements

The product does not have to be labelled.

#### 2.3 Other hazards not applicable



# **SECTION 3: Composition / information on ingredients**

#### Substances

Substance name Molecular formula Molecular weight CAS No. Ammonium cerium (IV) sulphate dihydrate (NH<sub>4</sub>)<sub>2</sub>Ce(SO<sub>4</sub>)<sub>4</sub>.2H<sub>2</sub>O 632.55 g/mol 10378-47-9

# **SECTION 4: First aid measures**

#### 4.1 General information

When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

#### After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

#### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

#### In case of ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Give nothing to eat or drink.

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

no data available

#### **4.3 Indication of any immediate medical attention and special treatment needed** no data available

#### no data available

#### **SECTION 5: Firefighting measures**

#### 5 1 Extinguishing media

**Suitable extinguishing media** The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

# Extinguishing media which must not be used for safety reasons no restriction

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

In case of fire may be liberated: Nitrogen oxides (NOx) Sulphur oxides



### 5.3 Advice for firefighters

DO NOT fight fire when fire reaches explosives. Special protective equipment for firefighters Wear a self-contained breathing apparatus and chemical protective clothing.

# 5.4 Additional information

Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. Use water spray jet to protect personnel and to cool endangered containers. In case of fire: Evacuate area.

# **SECTION 6: Accidental release measures**

# 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation.

### 6.2 Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3 Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Clean contaminated articles and floor according to the environmental legislation. Collect in closed and suitable containers for disposal.

#### 6.4 Additional information

Clear spills immediately.

# **SECTION 7: Handling and storage**

#### Precautions for safe handling

All work processes must always be designed so that the following is as low as possible: Inhalation skin contact Eve contact

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

Recommended storage temperature: Store in a tightly closed container. Keep container tightly closed and in a well-ventilated place.

### Specific end use(s)

no data available

# **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

# 8.2 Exposure controls

# Appropriate engineering controls no data available



# Personal protection equipment

no data available

Eye/face protection no data available

# Skin protection

Wear suitable gloves. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. In the case of wanting to use the gloves again, clean them before taking off and air them well. Check leak tightness/impermeability prior to use.

By short-term hand contact Suitable material: Thickness of the glove material: Breakthrough time (maximum wearing time):

NBR (Nitrile rubber) 0,12 mm > 480 min

By long-term hand contact Suitable material: Thickness of the glove material: Breakthrough time (maximum wearing time):

NBR (Nitrile rubber) 0,38 mm > 480 min

Respiratory protection no data available

Additional information no data available

Environmental exposure controls no data available



# **SECTION 9: Physical and chemical properties**

# 9.1 Information on basic physical and chemical properties

(a) Appearance	
Physical state:	solid
Colour:	yellow
(b) Odour:	no data available
(c) Odour threshold:	no data available

#### Safety relevant basic data

(d) pH: (e) Melting point/freezing point:	1-2 (100 g/l; H <sub>2</sub> O; 20 °C) 130 °C		
(f) Initial boiling point and boiling range:	no data available		
(g) Flash point:	no data available		
(h) Evaporation rate:	no data available		
(i) Flammability (solid, gas):	not applicable		
(j) Flammability or explosive limits			
Lower explosion limit:	no data available		
Upper explosion limit:	no data available		
(k) Vapour pressure:	no data available		
(I) Vapour density:	no data available		
(m) Relative density:	no data available		
(n) Solubility(ies)			
Water solubility (g/L):	soluble (20 °C)		
Soluble (g/L) in Ethanol:	no data available		
(o) Partition coefficient: n-octanol/water:	no data available		
(p) Auto-ignition temperature:	no data available		
(q) Decomposition temperature:	no data available		
(r) Viscosity			
Kinematic viscosity:	no data available		
Dynamic viscosity:	no data available		
(s) Explosive properties:	not applicable		
(t) Oxidising properties:	not applicable		

# 9.2 Other information

Bulk density:	no data available
Refraction index:	no data available
Dissociation constant:	no data available
Surface tension:	no data available
Henry's Law Constant:	no data available

# **SECTION 10: Stability and reactivity**

#### **10.1 Reactivity**

no data available

# **10.2 Chemical stability**

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



#### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

no data available

# 10.5 Incompatible materials

no data available

# 10.6 Hazardous decomposition products

no data available

# **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

### Acute effects

Acute oral toxicity: no data available

Acute dermal toxicity: no data available

Acute inhalation toxicity: no data available

# Irritant and corrosive effects

Primary irritation to the skin: not applicable

Irritation to eyes: not applicable

*Irritation to respiratory tract:* not applicable

# Respiratory or skin sensitisation

In case of skin contact: not sensitising After inhalation: not sensitising

**STOT-single exposure** not applicable

STOT-repeated exposure not applicable

# CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) Carcinogenicity

# Germ cell mutagenicity

No indications of human germ cell mutagenicity exist.

# Reproductive toxicity

No indications of human reproductive toxicity exist.





Aspiration hazard

not applicable

Other adverse effects no data available

# **SECTION 12: Ecological information**

#### 12.1 Ecotoxicity

Fish toxicity: no data available

Daphnia toxicity: no data available

Algae toxicity: no data available

Bacteria toxicity:

no data available

# 12.2 Persistence and degradability

no data available

# 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: no data available

### 12.4 Mobility in soil:

no data available

12.5 Results of PBT/vPvB assessment

no data available

### 12.6 Other adverse effects

no data available

#### **SECTION 13: Disposal considerations**

# 13.1 Waste treatment methods

#### Appropriate disposal / Product

Dispose according to local legislation. Consult the appropriate local waste disposal expert about waste disposal.

# Appropriate disposal / Package

Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.

#### **SECTION 14: Transport information**

#### Land transport (ADR/RID)

No dangerous good in sense of this transport regulation.



# Sea transport (IMDG)

No dangerous good in sense of this transport regulation.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not relevant

# Air transport (ICAO-TI / IATA-DGR)

No dangerous good in sense of this transport regulation.



# **SECTION 15: Regulatory information**

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

# **SECTION 16: Other information**

#### Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygiensts ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road AGS - Committee on Hazardous Substances (Ausschuss für Gefahrstoffe) CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures DFG - German Research Foundation (Deutsche Forschungsgemeinschaft) Gestis - Information system on hazardous substances of the German Social Accident Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung) IATA-DGR - International Air Transport Association-Dangerous Goods Regulations ICAO-TI - International Civil Aviation Organization-Technical Instructions IMDG - International Maritime Code for Dangerous Goods LTV - Long Term Value NIOSH - National Institute for Occupational Safety and Health OSHA - Occupational Safety & Health Administration PBT - Persistent, Bioaccumulative and Toxic RID - Regulation concerning the International Carriage of Dangerous Goods by Rail STV - Short Term Value SVHC - Substances of Very High Concern

vPvB - very Persistent, very Bioaccumulative

Additional information	
Indication of changes:	none

# Disclaimer

The information provided in this Safety Data Sheet (SDS) was prepared based on data believed to be accurate as of the date of this SDS. TO THE GREATEST EXTENT PERMITTED BY LAW, AVANTOR PERFORMANCE MATERIALS ("AVANTOR") EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES REGARDING THE INFORMATION CONTAINED HEREIN INCLUDING, WITHOUT LIMITATION, AS TO ACCURACY, COMPLETENESS, FITNESS FOR PURPOSE OR USE, MERCHANTABILITY, NON-INFRINGEMENT, PERFORMANCE, SAFETY, SUITABILITY AND STABILITY. This SDS is intended as a guide to the appropriate use, handling, storage and disposal of the product to which it relates by properly trained personnel, and is not intended to be comprehensive. Users of Avantor's products are advised to perform their own tests and to exercise their own judgment to determine the safety, suitability and appropriate use, handling, storage and disposal of each product combination for their own purposes and uses. TO THE GREATEST EXTENT PERMITTED BY LAW, AVANTOR DISCLAIMS LIABILITY FOR, AND BY USING AVANTOR'S PRODUCTS THE PURCHASER AGREES THAT UNDER NO CIRCUMSTANCES SHALL AVANTOR BE LIABLE FOR, SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGE OF ANY TYPE OR KIND, INCLUDING WITHOUT LIMITATION, FOR LOSS OF PROFITS, REPUTATIONAL DAMAGE, PRODUCT RECALL OR BUSINESS INTERRUPTION.