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According to prepared by regulation (official journal 29204/13.12.2014) about dangerous substances and preparations of sds and EU 1272/2008 (EU-GHS-CLP)

AMMONIUM SULPHATE

Number of arrangement: 1 Form Number: 08
Data of prepared: 22.12.2017 Date of rearrangement: 22.12.2017

IDENTIFICATION OF SUBSTANCE / PREPARATE AND COMPANY/ DELIVERER

1.1 SUBSTANCE: Ammonium sulfate is used primarily where there is a need for supplemental N and S to meet the nutritional requirement of growing plants. Since it contains only 21% N, there are other fertilizer sources that are more concentrated and economical to handle and transport. However, it provides an excellent source of S which has numerous essential functions in plants, including protein synthesis. However, dust formation is a feature to be considered.

Ammonium Sulphate: (crystalline, powder, dry, +600 micron $\approx \%90$)

1.2 COMPANY INFORMATION

Company Name : ETİ BAKIR A.Ş. SAMSUN İŞLETMELERİ

Address : SANAYİ MAH.SELYERİ MEVKİİ ETİ BAKIR İŞLETMELERİ TEKKEKÖY /SAMSUN

E-Mail Address : <u>etisamsun@cengiz.com.tr</u>

Phone No : +90 362 256 09 90

Fax No : +90 362 256 09 99

URL/web : www.cengiz.com.tr

1.3 Emergency information:

Company information : +90 362 256 09 90

Emergency assistance center: 112

POISON CENTER : 114

2. HAZARDS IDENTIFICATION:

- 2.1 Classification Substance / Preparation
- 2.1.1 Hazard Classification:

According to (EC) No 1272/2008 [EU-GHS-CLP] regulation- (Offical Journal)-11.12.2013-28848) not classified dangerous substance.



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2.2 Labelling Information According to (EC) No 1272/2008 [EU-GHS-CLP] regulation- (Offical Journal)-11.12.2013- 28848)

No Label elements.

Prevention:

P201 – Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

P271 – Use only outdoors or in a well-ventilated area

P273 – Avoid release to the environment

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301+ P310: IF SWALLOWED Immediately call a POISON CENTER or doctor/physician

P330 – Rinse mouth.

P311 – Call a POISON CENTER or doctor/physician

P391 – Collect spillage

P314 – Get medical advice/attention if you feel unwell

P308+ P313 IF exposed or concerned: Get medical advice/attention.

Storage

P403 + P233 – Store in a well-ventilated place. Keep container tightly closed

P405 – Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.



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3.COMPOSITION/INGREDIENTS

Compound	Chemical Formula	CAS No	EC No	Classification EU 1272/2008 (EU-GHS-CLP)
Ammonium	$(NH_4)_2 SO_4$	7783-20-2	231-984-1	
Sulfate (>%99)				

4. FIRST AID MEASURES

4.1 General information:

Consult doctor. Show this MSDS to your doctor. Persons responding to first aid measure should wear protective clothes.

- 4.2 After Skin Contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- 4.3 After eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- 4.4 After swallowing: Rinse mouth. Do NOT induce vomiting. Consult doctor.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Ambient

Suitable Extinguishing Agents: Foam. Dry powder. Carbon dioxide. Water spray. Sand. Unsuitable extinguishing Agents: Do not use a heavy water stream.

The product is non-flammable. Use firefighting measures that suit the environment.

5.2 Special Hazards Arising from Substance or Preparation:

In case of fire development of hazardous gases may occur sulfur dioxide and nitric oxide. Dispose of fire debris and contaminated firefighting water in accordance with official regulations. Collect contaminated firefighting water separately. It must not enter drains.

5.3 Information about Fire-Fighting:

Prevent contact with not protected body. Wear protective clothing. Wear personal breathing apparatus.



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6. ACCIDENTAL RELEASE MEASURES

6.1 Person-Related Safety Precautions and Emergency Procedures: Ensure adequate ventilation. Prevent contact with not protected body. Avoid of contact with your body. Avoid contact with water. The aqueous solution is acidic.

6.2 Measures for Environmental Protection:

Prevent material from reaching sewage system and water resources. Do not drain the environment without legal permission.

7. HANDLING AND STORAGE

7.1 Information for Safe Handling: Avoid to dust contacting with body. Ensure good ventilation/exhaust at the workplace and pay attention of emission threshold. Open and handle container with care. Clean protective clothing before entering the eating area.

7.2 Information about Safe Storage Conditions:

Store in cool,dry conditions in well closed containers, big bag or under roof and compact floor. Store away from oxidant or explosive substances. Keep ignition sources and combustible material away.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1Engineering Controls:

Ammonium Sulphate in the working environment well below recommended occupational exposure limits (TWA). If ventilation alone cannot so control exposures, use approved respirators selected according to local regulations.

- 8.2 Personal Protective: Use direction of NIOSH, CEN, EU, EEC equipment avoid to dust in working environment. Keep away from foodstuffs, beverages and food. Wash hands during breaks and at the end of the work.
- 8.2.1 Breathing Equipment: Use suitable mask for dust.
- 8.2.2 Protection of Hands: Protective gloves. PVC, PE
- 8.2.3 Eye Protection: Use goggles and face protection or full breathing apparatus. Generally do not use contact lenses when working with chemicals. Because contact lenses increases the severity of an eye injury.



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8.2.4 Body and Skin Protection: Protective work clothing and safety shoes. Remove and wash contaminated clothing before reuse

8.3 Environmental Exposure Controls:

In generally contaminated material must not drain to waste water canals, ground water. All type of dispose of the material, usage and report obey the legal regulations.

9. Physical and Chemical Properties:

- a) Physical Appearance Form: Ammonium Sulphate: (crystalline, powder, dry, +600 micron $\approx \%90$)
- b) Odor: Odorless
- c) Color: White.
- d) pH: 5-6132 g/L @ 25°C (aqueous solution)
- e) Boiling point: No available data
- f) Melting point: 280 °C
- g) Evaporation rate: not apply
- h) Flammability: Non flammable.
- ı) Flash Point: No data available
- j) Density: 1.77-1,78 g/cm³
- k) Bulk density: 1,20 g/cm³
- I) Solubility in / Miscibility with Water at 20°C: soluble in water
- m) Danger of explosion: It is not explosive.
- n) Auto-Ignition Temperature: No available data
- o) Ignition Temperature: No available data
- p) Oxidizing Properties: No available data
- r) Log Pow: -5.1

10. STABILITY AND REACTIVITY

Stability: It is a stable state under normal conditions.

Unstable Conditions: When treated with acids, oxidants and heat it may remove gas.

Hazardous Decomposition Products: SO₂,NO₂ Gaseous ammonia.

11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity On Animals

 LD_{50} Oral Rat >2000 mg/kg , LD_{50} Dermal Rat >2000 mg/kg



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11.2 Chronic Effects on Human:

No available data to chronic toxicity effects on human.

12. ECOLOGICAL INFORMATION

LC50 fish 1 36.7 mg/l EC50 Daphnia 1 433 mg/l

12.1 Ecotoxicity: No Ecotoxicity

12.2 Mobility: Ammonium Sulphate dissolve to the environment. used as fertilizer

- 12.3 Persistence and degradability: Ammonium Sulphate are stable compounds. Following the aqueous solution dissolves in the form of salts necessary for the soil
- 12.4 Bioaccumulation potential: No bioaccumulation potential
- 12.5 PBT and vPvB Evaluation Results: None.

13. DISPOSAL

Do not mix with other materials. Uncleaned or contaminated containers are treated as the product. Do not allow product to sewage system.

Waste should be given to proper waste companys by Offical.Journal: 29314. 02.04.2015 "Waste management regulation"

14. TRANSPORT INFORMATION

ADR

Not regulated as dangerous goods

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.



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IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available.

Observe general packing and packaging criteria.

15. REGULATORY INFORMATION

The product is not classifed and labeled by regulation about Classification, labeling and packaging of substances and preparations and according to the rules and regulations stipulated in the Regulation and EU legislation

Related regulations:

Regulation about the Classification, Labeling and Packing of the substances and preparations Regulation on Safety Data Sheets for Hazardous Substances and preparations

16. OTHER INFORMATION

According to (EC) No 1272/2008 [EU-GHS-CLP] regulation- (Offical Journal)-11.12.2013-28848)

not classified dangerous substance

2.2 Labelling Information According to (EC) No 1272/2008 [EU-GHS-CLP] regulation- (Offical Journal)-11.12.2013- 28848)

No. Label elements

Prevention:

P201 – Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

P271 – Use only outdoors or in a well-ventilated area

P273 – Avoid release to the environment

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

Response:



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Disposal:

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Additional info:

The information in this safety data sheet is true since it is published with current information. In case of revision unless it is not specified in another part of safety data sheet, The data by the supplier changes made to the previous version with safety data sheets with descriptions or if there are available on request. The information contained here is only safe to use transport storage and disposal is intended as a guide and should not be considered a guarantee or quality specification. Error is not responsible for any situation arising from the neglect and their outcome. All kind of risks because of using the product is user's responsibility. Users receive training on the product will be useful in order to avoid possible negative situation. Information are only for relevant products and unless the form combination with other substances or different processes and conditions may not apply to the interior.

- 1 According to prepared by regulation (official journal 29204/13.12.2014) about dangerous substances and preparations of sds and EU 1272/2008 (EU-GHS-CLP)
- 2 Offical journal-11/12/2013-28848- Regulation about the Classification, Labeling and Packing of the substances and preparations
- 3 NIOSH: The National Institute for Occupational Safety and Health
- 4 EINECS European Inventory of Existing Chemical Substances
- 5 CAS: Chemical Abstracts Service
- 6 TWA: Measured or calculated for the specified reference period of 8 hours weighted average 7 STEL: Unless another time, exposure upper limit must not be exceeded for a period of 15 minutes.
- 8 mg/m3: At 20 C and 101.3 kPa. (760 mm mercury pressure) the amount in milligrams of substance contained in 1 m3 of air pressure
- 9 ACGIH: American Conference of Governmental Industrial Hygienists
- 10 CEN: European Committee for Standardizations



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11 NTP: (National Toxicology Program) National Toxicology Program

12 IARC: (The International Agency for Research on Cancer) International Agency for Research on Cancer

13 OSHA: (Occupational Safety and Health Association) Occupational health and safety association

14 EWC: (European Waste Catalog) European Waste Catalogue

15 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

16 RID: Regulations Concerning the International Transport of Dangerous Goods by Rail

17 ADNR: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways

18 IMDG: International Maritime Code for Dangerous Goods

19 ICAO: International Civil Aviation Organization

20 IATA: International Air Transport Association

21 PBT and vPvB: Persistent Bioaccumulative Toxic Very Persistent and very Bioaccumulative

22 MARPOL International Convention for the Prevention of Pollution From Ships

23 NFPA The United States National Fire Protection Agency

24 LD₅₀ / LC₅₀ Average lethal dose / average lethal concentration

25 ILO: International Labour Organization

Prepared for the Safety Data Sheet:

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