# SAFETY DATA SHEET

# Calcium Ammonium Nitrate EC FERTILIZER- TOROS CAN

Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

#### 1.1. Product identifier

Product name Calcium Ammonium Nitrate EC FERTILIZER- TOROS CAN

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Fertilizer.

**Uses advised against**No specific uses advised against are identified.

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

**Supplier** Toros Tarım Sanayi ve Ticaret A.Ş.

Head office: Tekfen Tower Büyükdere Cad. No: 209

34394 4. Levent Şişli / İstanbul-Turkey

Tel: +90 212 357 02 02 Fax: +90 212 357 02 31 www.toros.com.tr

#### 1.4. Emergency telephone number

Emergency telephone Toros Tarım/Mersin Production Facilities - Tel: +90 324 234 3100

#### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

2.2. Label elements

Hazard statements NC Not Classified

#### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

Inhalation of decomposition gases, including ammonia and oxides of nitrogen, may cause abrasive effects and irritation in the respiratory system. Some lung functions may be inhibited. The product does not extinguish, but supports combustion even in airless environment. It melts when heated and causes decomposition. Toxic gases such as nitrogen oxides (NOx) and ammonia (NH3) are released. High resistance to detonation.

Inhalation: If concentration is high, it may damage the burr and the upper respiratory system. May cause sore throat and coughing. Skin contact: Prolonged contact with skin may cause irritation, redness and debris.

Eye contact: May cause redness and burning.

Ingestion: Trivial toxic effects when swallowed in small quantities. Swallowing in high quantities may cause gastrointestinal disturbances. Rarely can form methemoglobin formation and cyanosis.

Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

#### 3.2. Mixtures

Ammonium nitrate ≥74%

CAS number: 6484-52-2 EC number: 229-347-8

REACH ANNEX XVII.

SCL:Eye Irrit. 2 - H319: 80< C ≤100 %

Classification
Ox. Sol. 2 - H272
Eye Irrit. 2 - H319

The full text for all hazard statements is displayed in Section 16.

Composition comments A mixture of ammonium nitrate and calcium carbonate (limestone); 80% dense ammonium nitrate, less

than 20% calcium carbonate and the amount of combustible material should be less than 0.04% Nitrogen content should not be less than 20%. This product may also contain some inert substances,

limestone and / or dolomite.

#### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

General information Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

**Inhalation** Remove affected person from source of contamination. Move affected person to fresh air and keep warm

and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure

breathing can take place.

**Ingestion** Rinse mouth thoroughly with water. Remove any dentures. Stop if the affected person feels sick as

vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

Skin contact Rinse with water. Get medical attention if symptoms are severe or persist after washing.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart.

Continue to rinse for at least 10 minutes.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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

General information See Section 11 for additional information on health hazards. The severity of the symptoms described will

vary dependent on the concentration and the length of exposure.

**Inhalation** No specific symptoms known.

Ingestion May cause discomfort if swallowed. May cause stomach pain or vomiting.

**Skin contact** Prolonged contact may cause dryness of the skin.

**Eye contact** Prolonged contact may cause redness and/or tearing.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

Commission Regulation (EU) No 2015/830 of 28 May 2015.

#### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with the following media: Water spray.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire. Do not use the following: Foam. Dry

chemicals, sand, dolomite etc.

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

**Specific hazards** May cause or intensify fire; oxidiser.

Ammonium nitrate is classified as an explosive if it is contaminated with organic substances or 0.2% by

inorganic flammable substances.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Harmful gases or

apours.

#### 5.3. Advice for firefighters

# Protective actions during

firefighting

Avoid breathing fire gases or vapours. Evacuate area. May cause or intensify fire; oxidiser. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

# Special protective equipment for

firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and

gloves) will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

# 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material.

#### 6.2. Environmental precautions

**Environmental precautions** 

Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil

or air).

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

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Do not use sawdust or other combustible material. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Use only non-sparking tools. Approach the spillage from upwind. Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. The requirements of the local water authority must be complied with if contaminated water is flushed directly to the sewer. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

# 6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8.

See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

For waste disposal, see Section 13.



Commission Regulation (EU) No 2015/830 of 28 May 2015.

#### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

#### Usage precautions

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid handling which leads to dust formation. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

# Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

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

#### Storage precautions

Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep away from flammable and combustible materials. Store away from the following materials: Alkalis. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Keep away from food, drink and animal feeding stuffs. Equipment such as power tools, switches and fuse boxes should be placed outside the warehouse as much as possible. During the storage of packaged products, exposure to high temperature differences should be avoided.

Suitable container materials: Stainless steel.

#### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

#### SECTION 8: Exposure controls/Personal protection

# 8.1. Control parameters

#### Occupational exposure limits

General dust (TWA-8h): 10 mg/m3

**ACGIH** 

ACGIH = American Conference of Governmental Industrial Hygienists.

# 8.2. Exposure controls

# Protective equipment







#### Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

# Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Commission Regulation (EU) No 2015/830 of 28 May 2015.

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk

assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes

are recommended.

For exposure up to 4 hours, wear gloves made of the following material: Nitrile rubber.

Other skin and body protection Appropriate footwear and additional protective clothing complying with an approved standard should be

worn if a risk assessment indicates skin contamination is possible.

Hygiene measures Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the

workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the

product.

**Respiratory protection** Respiratory protection complying with an approved standard should be worn if a risk assessment

indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European

Standard EN140.

Wear a respirator fitted with the following cartridge: Particulate filter, type P2.

**Environmental exposure controls** Keep container tightly sealed when not in use.

#### SECTION 9: Physical and chemical properties

# 9.1. Information on basic physical and chemical properties

Appearance Solid.

**Colour** White/off-white.

Odour Odourless.

Odour threshold No information available.

pH (diluted solution): >4.5 %10

Melting point No information available.

Initial boiling point and range No information available.

Flash point Not applicable.

Evaporation rate

No information available.

Flammability (solid, gas)

No information available.

Upper/lower flammability or

explosive limits

No information available.

Vapour pressure No information required.

Vapour density No information required.

Relative density 1.72 @ 20°C

Bulk density No information available.



Commission Regulation (EU) No 2015/830 of 28 May 2015.

Solubility(ies) Nitratul de amoniu are o solubilitate ridicată în apă, carbonatul de calciu este uor solubil în apă.

Hygroscopic.

Auto-ignition temperature Not applicable.

**Decomposition Temperature** No information available.

Viscosity Not applicable.

EEC test is not explosive according to A14 (67/548 / EEC). The fertilizer has high resistance against

explosion. This resistance is reduced due to the contaminants in the contents and / or high temperature. Heating in enclosed spaces (tube, duct etc.); Especially if the materials listed in Chapter 10, 2 are

contaminated, lead to severe reactions and explosions.

Oxidising properties Supports combustion and oxidation

9.2. Other information

Other information No information required.

Bulk density 900-1100 kg/m3

# SECTION 10: Stability and reactivity

#### 10.1. Reactivity

**Reactivity** See the other subsections of this section for further details.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed

storage conditions.

# 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Heating in closed containers (pipe, duct, etc.); especially if the substances listed in Section 10.5 are

contaminated it causes severe reactions and explosions. In the case of alkali materials such as lime,

ammonia gas is released.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Flammable/combustible materials. Reducing agents. Acids. Alkalis. Sulphur. 5. Chlorites Nitrides. 14.

Permanganates Powdered metal. Copper. Nickel. Cobalt. Zinc. Some metals. Grease oil Diesel fuel

Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition Does not decompose when used and stored as recommended. Thermal decomposition or combustion

products may include the following substances: Harmful gases or vapours.

#### SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

Acute toxicity - oral

products

Notes (oral LD<sub>50</sub>) Based on available data the classification criteria are not met.

LD₅₀ >2000 mg/kg, Oral, Rat (OECD Test Guideline 401)

Acute toxicity - dermal

Notes (dermal LD<sub>50</sub>) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) Based on available data the classification criteria are not met.



Commission Regulation (EU) No 2015/830 of 28 May 2015.

Skin corrosion/irritation

**Skin corrosion/irritation**Based on available data the classification criteria are not met.

(OECD 404)

Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

OECD Guideline 429

Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

Germ cell mutagenicity

**Genotoxicity - in vitro**Based on available data the classification criteria are not met.

(OECD Guideline 471) (OECD Guideline 473)

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

(OECD Guideline 453)

IARC carcinogenicity Contains a substance which has been shown to cause cancer in laboratory animals. IARC Group 2A

Probably carcinogenic to humans.

Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

(OECD 422) - NOAEL  $\geq$  1500 mg/kg, 28d, Oral,

Reproductive toxicity -

development

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

**Aspiration hazard** Not relevant. Solid.

General information The severity of the symptoms described will vary dependent on the concentration and the length of

exposure.

**Inhalation** Dust in high concentrations may irritate the respiratory system.

Ingestion May cause discomfort if swallowed. May cause stomach pain or vomiting. May cause Methemoglobin

syndrome.

Skin contact Prolonged contact may cause dryness of the skin. May be slightly irritating to skin.

Eye contact Irritating to eyes.

Route of exposure Ingestion Inhalation Skin and/or eye contact

Target organs No specific target organs known.

Toxicological information on ingredients.

Ammonium nitrate



Commission Regulation (EU) No 2015/830 of 28 May 2015.

Acute toxicity - oral

Notes (oral LD<sub>50</sub>) LD<sub>50</sub> 2950 mg/kg, Oral, Rat (OECD Test Guideline 401)

Acute toxicity - dermal

Notes (dermal LD50) LD50 >5000 mg/kg, Dermal, Rat (OECD Test Guideline 402)

Carcinogenicity

IARC carcinogenicity IARC Group 2A Probably carcinogenic to humans.

**SECTION 12: Ecological information** 

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous

effects on the environment.

12.1. Toxicity

**Toxicity** Based on available data the classification criteria are not met. Low acute toxicity to aquatic organisms.

Acute aquatic toxicity

Acute toxicity - fish LC<sub>50</sub>, 96 hours: 6000 mg/l, Sakmo gairdneri.

TLM, 96 hours: 10-1000 ppm,

Acute toxicity - aquatic plants EC<sub>50</sub>, 72 hours: 83 mg/l, Scenedesmus quadricauda

Ecological information on ingredients.

Ammonium nitrate

Acute aquatic toxicity

Acute toxicity - fish LC<sub>50</sub>, 96 hour: 447 mg/l, Cyprinus carpio (Common carp)

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

The NO3- ion is the strongest form of plant nutrition. Then the resultant nitrogen in the natural nitrification

/ denitrification cycle is released.

12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulating.

Ecological information on ingredients.

Ammonium nitrate

Partition coefficient No information available.

12.4. Mobility in soil

Mobility Soluble in water. The NO3- ion is mobile, the NH4 + ion is absorbed by the soil.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB

This product does not contain any substances classified as PBT or vPvB.

assessment

12.6. Other adverse effects

Other adverse effects However, large or frequent spills may have hazardous effects on the environment.



Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

#### 13.1. Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products

wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods**Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed

waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration

or landfill should only be considered when recycling is not feasible.

Waste class 06 10 02\* Wastes containing dangerous substances

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

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA,

ADR/RID).

#### 14.1. UN number

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

# 14.3. Transport hazard class(es)

No transport warning sign required.

# 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No

# 14.6. Special precautions for user

Not applicable.

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and

Not applicable.

the IBC Code

Commission Regulation (EU) No 2015/830 of 28 May 2015.

#### **SECTION 15: Regulatory information**

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

National regulations Health and Safety at Work etc. Act 1974 (as amended).

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI

2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.

**EU** legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006

concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as

amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on

classification, labelling and packaging of substances and mixtures (as amended).

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

#### SECTION 16: Other information

in the safety data sheet

Abbreviations and acronyms used ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland

Waterways

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

IATA: International Air Transport Association.

ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate.

LC₅o: Lethal Concentration to 50 % of a test population.

LD₅o: Lethal Dose to 50% of a test population (Median Lethal Dose).

EC50: 50% of maximal Effective Concentration.

PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and

acronyms

Ox. Sol. = Oxidising solid Eye Irrit. = Eye irritation

Key literature references and

sources for data

Source: European Chemicals Agency, http://echa.europa.eu/

This SDS is prepared based on the information and documents received from product owner. CRAD or/and SDS author shall not be responsible for incorrect preapared of SDS and pecuniary loss or intangible damages because of deficient or wrong information and documents which comes from product

owner

Training advice Read and follow manufacturer's recommendations. Only trained personnel should use this material.

**Revision comments** This SDS differs from the previous revision in the following sections: 2. 14.

Bülent Özdemir / CRAD Issued by

www.crad.com.tr gbf@crad.com.tr

Revision date 01/07/2021

Revision 20

Supersedes date 14/10/2019

SDS number 8750

Commission Regulation (EU) No 2015/830 of 28 May 2015.

Hazard statements in full

H272 May intensify fire; oxidiser. H319 Causes serious eye irritation.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.