1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Trade name: Ethylammonium-nitrate ≥ 97%
Article number: 2035
CAS Number: 22113-86-6

Registration number
A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture
Laboratory chemical

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Carl Roth GmbH + Co. KG
Schoemperlenstraße 3-5
76185 Karlsruhe
Germany
Telefon: +49/(0)721 5606-0   Telefax: +49/(0)721 5606-149   E-Mail: sicherheit@carlroth.de

Further information obtainable from: Department Health, Safety and Environment

1.4 Emergency telephone number:
Poison Centre Munich Telefon +49/(0)89 19240

2 Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC
Xi; Irritant
R36/37/38: Irritating to eyes, respiratory system and skin.

Additional information: Note, not yet fully tested.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS07

(Contd. on page 2)
Signal word Warning

Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statements
P280 Wear protective gloves / eye protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Additional information:

2.3 Other hazards
All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care.

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

3.1 Chemical characterization: Substances

CAS No. Description
22113-86-6 Ethylammonium nitrate

Identification number(s) -
Formula: C₃H₉N₂O₃
Molar mass [g/mol]: 108,10

4 First aid measures

4.1 Description of first aid measures

General information:
Remove any clothing soiled by the product.

After inhalation:
Supply fresh air and to be sure call for a doctor.

After skin contact:
Wash with water and soap.
If there is any trouble seek medical help.

After eye contact:
Rinse opened eye for 10 minutes under running water. Then consult a doctor.

After swallowing:
Rinse out mouth and drink a glass of water. Do not induce vomiting.
Seek medical treatment.
## 4.2 Most important symptoms and effects, both acute and delayed
We have no description of any toxic symptoms.

## 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

### 5. Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**For safety reasons unsuitable extinguishing agents:**
For this substance/mixture no limitations of extinguishing agents are given.

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

In case of fire, the following can be released:
Nitrogen oxides (NOx)
Carbon monoxide and carbon dioxide

#### 5.3 Advice for firefighters

**Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

### 6. Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with the eyes and skin.
Ensure adequate ventilation
Wear personal protective equipment.
Evacuate the danger area, observe emergency procedures, consult an expert.

#### 6.2 Environmental precautions

Do not allow to enter sewers/ground water or penetrate the soil.

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

Absorb with liquid-binding material (e.g. Rotisorb® Art.-Nr. 1710.1).
Dispose of the material collected according to regulations.
Ensure adequate ventilation.

#### 6.4 Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

### 7. Handling and storage

#### 7.1 Precautions for safe handling

Handling corresponding to laboratory safety guidelines.
Ensure good ventilation/exhaustion at the workplace.

**Information about fire - and explosion protection:**
No special measures required.
7.2 Conditions for safe storage, including any incompatibilities

**Storage:**

**Requirements to be met by storerooms and receptacles:**
No special requirements.

**Information about storage in one common storage facility:**
Store away from foodstuffs.

**Further information about storage conditions:**
Keep container tightly sealed.

**Recommended storage temperature:**
15 - 25 °C

7.3 Specific end use(s)
No further relevant information available.

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**8 Exposure controls/personal protection**

**Additional information about design of technical facilities:**
No further data; see item 7.

8.1 Control parameters

**Ingredients with limit values that require monitoring at the workplace:**
Not required.

**Additional information:**
The lists valid during the making were used as basis.

8.2 Exposure controls

**Personal protective equipment:**

**General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

**Individual protection measures**
Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

**Respiratory protection:**
Required when vapours/aerosols are generated. Filter P1.

**Protection of hands:**

Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (Contd. on page 5)
9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:
- Form: Fluid
- Colour: Colourless to pale yellow
- Odour: Odourless
- Odour threshold: Not determined.

pH-value: Not determined.

Change in condition
- Melting point/Melting range: 16 °C
- Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature: No information available

Decomposition temperature: Not determined.

Self-igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
- Lower: No information available.
- Upper: No information available.

Oxidizing properties: No information available.

Vapour pressure: Not determined. No information available.

Density at 20 °C: 1.261 g/cm³

Relative density: Not determined.
Trade name: Ethylammonium-nitrate ≥ 97%

10 Stability and reactivity

10.1 Reactivity
No information available

10.2 Chemical stability
Thermal decomposition / conditions to be avoided:
No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions
No information available.

10.4 Conditions to avoid
No information available.

10.5 Incompatible materials:
Strong oxidizing agents.

10.6 Hazardous decomposition products:
In case of fire: see item 5.

11 Toxicological information

11.1 Information on toxicological effects
Acute toxicity:

LD/LC50 values relevant for classification:
Quantitative data on the toxicity of this product are not available.

Primary irritant effect:
on the skin:
Irritant to skin and mucous membranes.

on the eye:
Irritating effect.

after inhalation:
Irritations in the respiratory tract, coughing, dyspnoea.

Sensitization:
No sensitizing effects known.

CMR effects:
Germ cell mutagenicity:
No information available.
Carcinogenicity:
No information available.
Trade name: Ethylammonium-nitrate ≥ 97%

Reproductive toxicity:
No information available.

Aspiration hazard:
No information available.

Specific target organ toxicity - single exposure May cause respiratory irritation.
Specific target organ toxicity - repeated exposure
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Additional toxicological information:
We have no description of any toxic symptoms.

Further information:
To the best of our knowledge, the toxicological properties have not been thoroughly investigated. Further hazardous properties cannot be excluded.
The product should be handled with the care usual when dealing with chemicals.

12 Ecological information

12.1 Toxicity
Aquatic toxicity:
Quantitative data on the ecological effect of this product are not available.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.

12.4 Mobility in soil
No further relevant information available.

Ecotoxicological effects:

Remark:
Do not allow to enter waters, waste water, or soil!
Additional ecological information:
General notes:
Do not allow product to reach ground water, water course or sewage system, even in small quantities.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.

13 Disposal considerations

Waste treatment methods
Recommendation
This material and its container must be disposed of as hazardous waste.
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

Uncleaned packaging:
Recommendation:
Disposal according to official regulations.
Safety data sheet
according to Regulation (EC) No. 1907/2006

Trade name: Ethylammonium-nitrate ≥ 97%

Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

14.1 UN-Number
ADR, ADN, IMDG, IATA
Void

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA
Void

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA
Class
Void

14.4 Packing group
ADR, IMDG, IATA
Void

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

UN “Model Regulation”:
-

15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations:
Information about limitation of use: Employment restrictions concerning juveniles must be observed.

Waterhazard class:
Water hazard class 3 (Self-assessment): extremely hazardous for water.

15.2 Chemical safety assessment
A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: Department: Health, Safety and Environment
Contact: Herr Heine

Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
### Trade name: Ethylammonium-nitrate ≥ 97%

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>Lethal concentration, 50 percent</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal dose, 50 percent</td>
</tr>
<tr>
<td>LD50*</td>
<td>Lethal Dose, 50 percent (Not relevant for classification)</td>
</tr>
<tr>
<td>LD50**</td>
<td>Lethal Concentration, 50 percent (Not relevant for classification)</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Hazard Category 2</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Hazard Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity - Single exposure, Hazard Category 3</td>
</tr>
</tbody>
</table>

* Data compared to the previous version altered.