

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

### 1.1 Product identifier

Trade name: Electrolyte AE 36

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

General use: Electrolytic/electrochemical metal marking for steels non-corrosive  
For commercial user only

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

Company name: Schilling Marking Systems GmbH  
Street/POB-No.: In Grubenäcker 1  
Postal Code, city: DE-78532 Tuttlingen  
WWW: www.schilling-marking.de  
E-mail: info@schilling-marking.de  
Telephone: +49 (0)7461 9472-0  
Telefax: +49 (0)7461 9472-28

Department responsible for information:  
Frau Bianca Schilling,  
Telephone: +49 (0)7461 9472-0  
Email: info@schilling-marking.de

### 1.4 Emergency telephone number

GIZ-Nord, Germany Telephone: +49 (0)551-19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to EC regulation 1272/2008 (CLP)

This mixture is classified as not hazardous.

### 2.2 Label elements

#### Labelling (CLP)

Hazard statements: not applicable

Precautionary statements: not applicable

#### Special labelling

EUH210 Safety data sheet available on request.

### 2.3 Other hazards

Special danger of slipping by leaking/spilling product.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

No data available

## SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

### 3.2 Mixtures

Chemical characterisation: Aqueous solution of inorganic salts and organic compounds.

Hazardous ingredients:

Identifiers	Designation Classification	Content
EC No. 231-555-9 CAS 7632-00-0	Sodium nitrite Ox. Sol. 3; H272. Acute Tox. 3; H301. Aquatic Acute 1; H400.	1 - 5 %
EC No. 231-554-3 CAS 7631-99-4	Sodium nitrate Ox. Sol. 3; H272. Acute Tox. 4; H302.	1 - 5 %

Full text of H- and EUH-statements: see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information:	If medical advice is needed, have product container or label at hand.
In case of inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if problems persist.
Following skin contact:	Remove residues with soap and water. Change contaminated clothing. In case of skin reactions, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.
After swallowing:	Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. If you feel unwell, seek medical advice.

### 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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media: Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

Extinguishing media which must not be used for safety reasons:  
Full water jet

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

On heating or in case of fire toxic gases may form.  
In the event of a fire, the following may be produced when the water evaporates:  
sodium compounds, nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Special protective equipment for firefighters:	Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.
Additional information:	Use fine water spray to cool endangered containers. Do not allow water used to extinguish fire to enter drains, ground or waterways. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

## SECTION 6: Accidental release measures

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

Do not breathe mist/vapours/spray. Avoid contact with the substance.  
If possible, eliminate leakage. Provide adequate ventilation.  
Wear appropriate protective equipment. Keep unprotected people away.

### 6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

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

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance. Final cleaning.  
Never return spills in original containers for re-use.

Additional information: Special danger of slipping by leaking/spilling product.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.  
Do not breathe mist/vapours/spray. Wear appropriate protective equipment.  
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Precautions against fire and explosion:  
Product is non-combustible.  
Take standard precautions to prevent fire.

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

Requirements for storerooms and containers:  
Keep container tightly closed and in a well-ventilated place.  
Keep container dry. Keep only in the original container.  
Protect from heat and direct sunlight.  
Store containers in upright position.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.  
Do not store together with: Strong acids, alkalis.

Storage class: 12 = Non-combustible liquids

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.

### Personal protection equipment

#### Occupational exposure controls

Respiratory protection: In case of inadequate ventilation wear respiratory protection.  
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection:	Protective gloves according to EN 374. Glove material: Butyl caoutchouc (butyl rubber)-Breakthrough time: >480 min. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Tightly sealed goggles according to EN 166.
Body protection:	Wear suitable protective clothing.
General protection and hygiene measures:	Do not breathe mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

**Environmental exposure controls**

Refer to "6.2 Environmental precautions".

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Physical state at 20 °C and 101.3 kPa	liquid
Colour:	Colourless, clear
Odour:	Characteristic
Odour threshold:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Flash point/flash point range:	not combustible
Decomposition temperature:	No data available
pH:	7,5 - 8,5
Viscosity, kinematic:	No data available
Water solubility:	at 20 °C: completely miscible
Partition coefficient: n-octanol/water:	No data available
Vapour pressure:	No data available
Density:	at 20 °C: 1,05 - 1,08 g/mL
Vapour density:	No data available
Particle characteristics:	Not applicable

**9.2 Other information**

Explosive properties:	No data available
Oxidizing characteristics:	No data available
Auto-ignition temperature:	No data available
Evaporation rate:	No data available
Additional information:	No data available

**SECTION 10: Stability and reactivity****10.1 Reactivity**

Refer to 10.3

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No dangerous reactions with proper and specified storage and handling

#### 10.4 Conditions to avoid

Protect from heat and direct sunlight.  
Do not mix with other chemicals.

#### 10.5 Incompatible materials

Strong acids and alkalis

#### 10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

### SECTION 11: Toxicological information

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological effects:

- Acute toxicity (oral): Based on available data, the classification criteria are not met.  
ATEmix (calculated):  $2000 \text{ mg/kg} < \text{ATE} \leq 5000 \text{ mg/kg}$
- Acute toxicity (dermal): Based on available data, the classification criteria are not met.  
ATEmix (calculated):  $> 5000 \text{ mg/kg}$
- Acute toxicity (inhalative): Lack of data.
- Skin corrosion/irritation: Lack of data.
- Serious eye damage/irritation: Lack of data.
- Sensitisation to the respiratory tract: Lack of data.
- Skin sensitisation: Lack of data.
- Germ cell mutagenicity/Genotoxicity: Lack of data.
- Carcinogenicity: Lack of data.
- Reproductive toxicity: Lack of data.
- Effects on or via lactation: Lack of data.
- Specific target organ toxicity (single exposure): Lack of data.
- Specific target organ toxicity (repeated exposure): Lack of data.
- Aspiration hazard: Lack of data.

#### 11.2 Information on other hazards

Endocrine disrupting properties: No data available

Other information:

- Information about Sodium nitrate (CAS No. 7631-99-4):  
LD50 oral Rat  $> 2.000 \text{ mg/kg/bw}$   
LD50 dermal Rat  $> 5.000 \text{ mg/kg/bw}$
- Information about Sodium nitrite (CAS No. 7632-00-0):  
LD50 oral Rat  $> 180 \text{ mg/kg/bw}$

### SECTION 12: Ecological information

#### 12.1 Toxicity

Water Hazard Class: 2 = obviously hazardous to water

#### 12.2 Persistence and degradability

Further details: 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 and vPvB assessment**

No data available

**12.6 Endocrine disrupting properties**

No data available

**12.7 Other adverse effects**

General information: Do not allow to enter into ground-water, surface water or drains.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Waste key number: 11 01 99 = Wastes from chemical surface treatment and coating of metals and other materials (eg. galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising): wastes not otherwise specified

Recommendation: Dispose of waste according to applicable legislation.

**Package**

Waste key number: 15 01 02 = Plastic packaging

Recommendation: Dispose of waste according to applicable legislation.  
Non-contaminated packages may be recycled.**SECTION 14: Transport information****14.1 UN number or ID number**ADR/RID, ADN, IMDG, IATA-DGR:  
not applicable**14.2 UN proper shipping name**ADR/RID, ADN, IMDG, IATA-DGR:  
Not restricted**14.3 Transport hazard class(es)**ADR/RID, ADN, IMDG, IATA-DGR:  
not applicable**14.4 Packing group**ADR/RID, ADN, IMDG, IATA-DGR:  
not applicable**14.5 Environmental hazards**

Dangerous for the environment: Substance/mixture is not environmentally hazardous according to the criteria of the UN model regulations.

Marine pollutant - IMDG: no

**14.6 Special precautions for user**

No dangerous good in sense of these transport regulations.

**14.7 Maritime transport in bulk according to IMO instruments**

No data available

## SECTION 15: Regulatory information

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

#### National regulations - Germany

Storage class: 12 = Non-combustible liquids  
Water Hazard Class: 2 = obviously hazardous to water  
Further regulations, limitations and legal requirements:  
No data available

#### National regulations - EC member states

Further regulations, limitations and legal requirements:  
Sodium nitrate: Regulation (EU) No 2019/1148 (marketing and use of explosives precursors)

### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

## SECTION 16: Other information

Wording of the H-phrases under paragraph 2 and 3:

H272 = May intensify fire; oxidiser.  
H301 = Toxic if swallowed.  
H302 = Harmful if swallowed.  
H400 = Very toxic to aquatic life.  
EUH210 = Safety data sheet available on request.

Reason of change: General revision

Date of first version: 5.6.2011

Department issuing data sheet: see section 1: Department responsible for information

Abbreviations and acronyms: Acute Tox.: Acute toxicity  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
Aquatic Acute: Hazardous to the aquatic environment - acute  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
EC: European Community  
EN: European Standard  
EQ: Excepted quantities  
EU: European Union  
IATA: International Air Transport Association  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG Code: International Maritime Dangerous Goods Code  
LD50: Lethal dose 50%  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
OSHA: Occupational Safety and Health Administration  
Ox. Sol.: Oxidising solids  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
TRGS: Technical Rules for Hazardous Substances  
vPvB: Very persistent and very bioaccumulative

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.