1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product information

Commercial Product Name
Zinc Acetate

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

Use of the Substance/Mixture
Mineral feed supplement in animal feed.
Pharmaceuticals
Catalyst
Stabilizer
Additive
Intermediate.
Antioxidant

Recommended restrictions on use
Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Niacet b.v.
P.O. Box 60
4000 AB Tiel
NETHERLANDS
Telephone +31 344-615224, Telefax. +31 344-611475
Tiel@Niacet.nl

Niacet Corporation
400 47th Street
Niagara Falls, NY
14304 U.S.A.
Telephone +1 716-285-1474 Telefax +1 716-285-1497
niacetcsr@niacet.com

1.4 Emergency telephone number

For Niacet b.v.Tiel, The Netherlands products: +31 344-615224
For Niacet Corporation, Niagara Falls, U.S.A. products:
Chemetrec +1 (800) 424 9300, +1 (703) 527 3887

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2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008 (CLP)
Acute toxicity; Category 4; Harmful if swallowed.
Chronic aquatic toxicity; Category 2; Toxic to aquatic life with long lasting effects.

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Harmful; Harmful if swallowed.
Dangerous for the environment; Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms: 
Signal word: Warning

Hazard statements:
H302 Harmful if swallowed.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P23 Avoid release to the environment.
P270 Do not eat, drink or smoke when using this product.
P264 Wash hands thoroughly after handling.

Response:
P330 Rinse mouth.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P391 Collect spillage.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Hazardous components which must be listed on the label:
5970-45-6 Zinc acetate dihydrate

2.3 Other hazards

None known.
3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>EINECS-No. / ELINCS No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc acetate dihydrate</td>
<td>5970-45-6</td>
<td>209-170-2</td>
<td>&lt;= 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation
Remove to fresh air. Keep patient warm and at rest. In case of feeling sick consult a physician.

Skin contact
Rinse with water.

Eye contact
Rinse with plenty of water. If symptoms persist, call a physician.

Ingestion
Rinse mouth with water. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treatment : Rinse with plenty of water.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

No information available.

5.3 Special protective actions for fire-fighters

Standard equipment for firefighting.
5.4 Specific methods
The product is not flammable.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. For personal protection see section 8.

6.2 Environmental precautions
Try to prevent the material from entering drains or water courses.

6.3 Methods and materials for containment and cleaning up
Take up mechanically and collect into suitable containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Keep container closed when not in use. Provide appropriate exhaust ventilation at places where dust is formed. Avoid breathing dust. Avoid contact with skin, eyes and clothing.

7.2 Conditions for safe storage, including any incompatibilities
Store in closed original packing, dry and at room temperature. Do not stack pallets.
Materials to avoid:
no data available

7.3 Specific end uses

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Limit Values
Contains no substances with occupational exposure limit values.

8.2 Exposure controls

8.2.1 Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. In
case of insufficient ventilation, wear suitable respiratory equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

8.2.2 Individual protection measures, such as personal protective equipment

Hand protection
- Glove material: PVC
- Glove material: Rubber gloves

Eye protection
- Tightly fitting safety goggles or face-shield.

Skin and body protection
- Work clothing.

Respiratory protection
- Respirator must be worn if exposed to dust. Respirator with a dust filter

8.2.3 Environmental exposure controls
- Prevent product from entering the environment. Do not flush into surface water or sanitary sewer system.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information (appearance, odour)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid, crystalline</td>
</tr>
<tr>
<td>Colour</td>
<td>white</td>
</tr>
<tr>
<td>Odour</td>
<td>mild, smell of acetic acid</td>
</tr>
</tbody>
</table>

Important health safety and environmental information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>6 - 6.6 (5 %) (as aqueous solution)</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>237 °C</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>258.2 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 250 °C (open cup)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>The product is not flammable. (Flammability (solids))</td>
</tr>
</tbody>
</table>

Explosive properties:
- Lower explosion limit: no data available
- Upper explosion limit: no data available

Density: 1.740 kg/m³

Solubility(ies):
- Water solubility: 311 kg/m³ (20 °C) approx. 435 g/l (25 °C)
- 666 kg/m³ (100 °C)

Autoignition temperature: > 410 °C (Relative self-ignition temperature for solids)
9.2 Other data

Surface tension not applicable

10. STABILITY AND REACTIVITY

10.1 Reactivity
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Hazardous reactions: No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid
Conditions to avoid: Stable under normal conditions.

10.5 Incompatible materials
Materials to avoid: no data available

10.6 Hazardous decomposition products
Hazardous decomposition products: No hazardous decomposition products are known.
Thermal decomposition: >250 °C

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Zinc acetate dihydrate:
LD50/Oral/rat: 663.83 mg/kg

Irritation and corrosion
Skin:
Not classified as irritating for skin.
SAFETY DATA SHEET

Zinc Acetate

Eyes:
Not classified as irritating for eyes.

Sensitisation

no data available

Long term toxicity

Other information

no data available

Human experience

Inhalation
Exposure to dust at high concentrations., Symptoms: Fever, cough and difficulties in breathing

Skin contact
Repeated or prolonged exposure,
May cause mild irritation.

Eye contact
May cause mild irritation.

Ingestion
Symptoms: Diarrhoea, vomiting, Thirst, Lowered blood pressure

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity effects

Aquatic toxicity

**Zinc acetate dihydrate:**
LC50/48 h/Pimephales promelas (fathead minnow)/static test: 2,46 mg/l

EC50/48 h/semi-static test: 6,38 mg/l

EC50/72 h/Algal inhibition test: 2,1 mg/l

Toxicity to other organisms

no data available
12.2 Persistence and degradability

Biological degradability:

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

Mobility

Water solubility: 311 kg/m³ (20 °C)
approx. 435 g/l (25 °C)
666 kg/m³ (100 °C)
Surface tension: not applicable

Water soluble. Stays in water phase. non-volatile

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Dispose of in compliance with local and national regulations.

14. TRANSPORT INFORMATION

14.1 UN number 3077

Land transport

ADR /RID:

Description of the goods: Environmentally hazardous substance, solid n.o.s. (Zinc acetate dihydrate)

14.2 UN proper shipping name 9

14.3 Class III

14.4 Packaging group:

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SAFETY DATA SHEET

Zinc Acetate

Risk code 90
ADR/RID-Labels: 9
14.5 Environmentally Hazardous Environmentally Hazardous

Sea transport
IMDG:
Description of the goods: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID N.O.S. (ZINC ACETATE DIHYDRATE)
14.3 Class: 9
14.4 Packaging group: III
IMDG-Labels: 9
14.5 Environmentally Hazardous: Marine pollutant

Air transport
ICAO/IATA:
Description of the goods: UN3077, Environmentally hazardous substance, solid n.o.s. (Zinc acetate dihydrate)
14.3 Class: 9
14.4 Packaging group: III
ICAO-Labels: 9
14.5 Environmentally Hazardous: Environmentally Hazardous
14.6 Special precautions for user
Keep in a dry place.

Marine pollutant

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Water contaminating class: WGK 3 highly water endangering (Germany)
Other regulations: No restrictions identified other than those already covered in regulations.

15.2 Chemical Safety Assessment
no data available
16. OTHER INFORMATION

Full text of H-statements referred to under section 3.

H302 Harmful if swallowed.
H411 Toxic to aquatic life with long lasting effects.

Text of R-phrases mentioned in Section 3

R22 Harmful if swallowed.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Training advice

Read the safety data sheet before using the product.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

Sources of key data used to compile the Safety Data Sheet

Regulations, databases, literature, own tests.

Additions, Deletions, Revisions

Relevant changes have been marked with vertical lines.