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

1.1 Product identifier

Trade name: Zinc acetate, anhydrous
Stock number: 35792
CAS Number: 557-34-6
EC number: 209-170-2

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

Identified use: SU24  Scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Alfa Aesar GmbH & Co.KG
A Johnson Matthey Company
Zeppelinstr. 7b
76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300
Email: tech@alfa.com
www.alfa.com
Informing department: Product safety Tel + +049 (0) 7275 988687-0

1.4 Emergency telephone number:
Carechem 24: +44 (o) 1235 239 670 (Multi-language emergency number)
Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS09 environment
Aquatic Acute 1  H400 Very toxic to aquatic life.
Aquatic Chronic 1  H410 Very toxic to aquatic life with long lasting effects.

GHS07
Eye Irrit. 2  H319 Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi: Irritant
R36: Irritating to eyes.
N: Dangerous for the environment
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards
for human and environment: Not applicable
Other hazards that do not result in classification: No information known.

2.2 Label elements

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

Signal word: Warning

Hazard pictograms
GHS07, GHS09

Hazard statements
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.
P260 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.
P264 Wash thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.1 Substances

CAS# Designation: 557-34-6 Zinc acetate
Identification number(s): EC number: 209-170-2

SECTION 4: First aid measures

4.1 Description of first aid measures

After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
Seek immediate medical advice.

After skin contact
Instantly wash with water and soap and rinse thoroughly.
Seek immediate medical advice.

After eye contact
Rinse opened eye for several minutes under running water. Then consult doctor.
Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents
CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Metal oxide

5.3 Advice for firefighters

Protective equipment:
Wear self-contained breathing apparatus.

(Contd. on page 2)
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Do not allow material to be released to the environment without proper governmental permits. Do not allow product to reach sewage system or water bodies. Do not allow to enter the ground/soil.

6.2 Environmental precautions:

Collect mechanically. No special measures required. See Section 7 for information on safe handling. See section 8 for information on personal protection equipment. See Section 13 for information on disposal.

6.3 Methods and material for containment and cleaning up:

Prevention of secondary hazards:

6.4 Reference to other sections:

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle under dry protective gas. Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

No information known.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers:

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents. Store away from water.

Further information about storage conditions:

Store under dry inert gas. This product is hygroscopic. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Protect from humidity and keep away from water.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

8.1 Control parameters

Components with critical values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information:

No data

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Avoid contact with the eyes. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. Use breathing protection with high concentrations.

Breathing equipment:

Protection of hands:

Maintain an ergonomically appropriate working environment.

Material of gloves

Penetration time of glove material

Impervious gloves

Not determined

Eye protection:

Face protection

Body protection:

Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Powder or granules

Form:

White

Colour:

Odour threshold:

Not determined

Smell:

Not applicable.

pH-value:

Not determined.

Change in condition

Melting point/Melting range:

200 °C (dec)

Boiling point/Boiling range:

Not determined

Sublimation temperature / start:

Not determined

Inflammability (solid, gaseous)

Not determined.

Ignition temperature:

Not determined.

Decomposition temperature:

Not determined.

Self-inflammability:

Not determined.

Danger of explosion:

Product is not explosive.

Critical values for explosion:

Lower:

Not determined

Upper:

Not determined

Steam pressure:

Not applicable.

Density

Not determined.

Relative density

Not determined.

Vapour density

Not applicable.

(Contd. on page 3)
Trade name **Zinc acetate, anhydrous**

Evaporation rate: Not applicable.
Solubility in / Miscibility with Water: Not determined.
Partition coefficient (n-octanol/water): Not determined.
Viscosity: Not applicable.
  - Dynamic:
  - Kinematic:

9.2 Other information: No further relevant information available.

**SECTION 10: Stability and reactivity**

10.1 Reactivity: No information known.
10.2 Chemical stability: Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions: No decomposition if used and stored according to specifications.
10.5 Incompatible materials: Oxidizing agents, Water/moisture.
10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide, Metal oxide.

**SECTION 11: Toxicological information**

11.1 Information on toxicological effects: The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.

LD/IC50 values that are relevant for classification:
- Oral (LD50) 2510 mg/kg (rat)
  - Skin irritation or corrosion: May cause irritation
  - Eye irritation or corrosion: Causes serious eye irritation.
  - Sensitization: No sensitizing effect known.
  - Germ cell mutagenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for components in this product.
  - Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
  - Reproductive toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for components in this product.

Specific target organ system toxicity - repeated exposure: No effects known.
Specific target organ system toxicity - single exposure: No effects known.
Aspiration hazard: No effects known.
Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

**SECTION 12: Ecological information**

12.1 Toxicity: No further relevant information 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.

Remarks: Very toxic for fish

Additional ecological information:
- General notes: Do not allow product to reach ground water, water bodies or sewage system.
- Do not allow material to be released to the environment without proper governmental permits.
- Water hazard class 2 (Self-assessment): hazardous for water.
- Danger to drinking water if even small quantities leak into soil.
- Also poisonous for fish and plankton in water bodies.
- May cause long lasting harmful effects to aquatic life.
- Avoid transfer into the environment.
- Very toxic for aquatic organisms

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

12.6 Other adverse effects: No further relevant information available.

**SECTION 13: Disposal considerations**

13.1 Waste treatment methods:
- Recommendation: Hand over to disposers of hazardous waste.
- Uncleaned packagings: Must be specially treated under adherence to official regulations.

Consult state, local or national regulations for proper disposal.

**SECTION 14: Transport information**

UN-Number, ADR, IMDG, IATA: UN3077

14.2 UN proper shipping name:
- ADR: 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc acetate, anhydrous)
- IMDG, IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc acetate, anhydrous)

14.3 Transport hazard class(es):
- ADR: 9 (M7) Miscellaneous dangerous substances and articles.
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name Zinc acetate, anhydrous

(Contd. of page 3)

9

IMDG

9 Miscellaneous dangerous substances and articles.

9

IATA

9 Miscellaneous dangerous substances and articles.

9

Packing group

ADR, IMDG, IATA

III

14.5 Environmental hazards:

Special marking (ADR):

Symbol (fish and tree)

Special marking (IATA):

Symbol (fish and tree)

14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

Kemler Number:

90

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Excepted quantities (EQ):

E1

Limited quantities (LQ)

5 kg

Transport category

3

Tunnel restriction code

E

UN "Model Regulation":

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Zinc acetate, anhydrous), 9, III

SECTION 15: Regulatory information

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

Australian Inventory of Chemical Substances

Substance is listed.

Standard for the Uniform Scheduling of Drugs and Poisons

Substance is not listed.

Information about limitation of use:

Employment restrictions concerning young persons must be observed.

For use only by technically qualified individuals.

Water hazard class:

Water hazard class 2 (Self-assessment): hazardous for water.

Other regulations, limitations and prohibitive regulations

ELINCS (European List of Notified Chemical Substances)

Substance is not listed.

Substances of very high concern (SVHC) according to REACH, Article 57

Substance is not listed.

REACH - Pre-registered substances

Substance is listed.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

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

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent