

AKÖMA™

FROM THE HEART

MATERIAL SAFETY DATA SHEET

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

1.1 Product identifier

Trade name	Piroctone Olamine)
CAS No.	68890-66-4
EC No.	272-574-2
Synonyms	1-Hydroxy-4-methyl-6-(2,4,4-trimethyl-pentyl)-2(1H)-pyridone, in combination with 2-aminoethanol (1:1) (IUPAC)

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

Ingredient for cosmetics and personal care products

1.3 Details of the supplier of the safety data sheet

Company	Akoma International (UK) LTD Unit 9A Sawley Park Nottingham Road Derby DE21 6AS
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Email technical@akoma.biz

1.4 Emergency Contact

H Mr. Wynn Mensah – Tel: 01332 613 967

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin irritation (Category 2), H315 Serious eye

damage (Category 1), H318

Long-term (chronic) aquatic hazard (Category 3), H412

2.2 Label elements

Label pictogram:  GHS05: corrosion

Signal word: Danger

Hazard statement

H315: Causes skin irritation.

H318: Causes serious eye damage.

H412: Harmful to aquatic life with long lasting effects.

Precautionary statement

P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P264:

Wash skin thoroughly after handling.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352: IF ON SKIN: Wash with plenty of water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical identity of the main constituent of the substance:

Chemical name: 1-Hydroxy-4-methyl-6-(2,4,4-trimethylpentyl)pyridin-2(1H)-one, compound with 2-aminoethanol (1:1) (IUPAC)

CAS No.: 68890-66-4

EINECS No.: 272-574-2

Concentration: <=100% w/w

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

As described in the labelling, see section 2.2 and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media Suitable

extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx)

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

No data available.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

6.5 Additional information

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	White to off-white crystalline powder
Odor	Slight characteristic odor
Odor threshold	Not determined
pH	8~10 (10g/l at 20°C)
Melting point/freezing point	133~135°C with decomposition
Initial boiling point and boiling range	Not determined
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	Not determined
Vapor pressure	Not determined
Vapor density	Not applicable

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Relative density	Ca 400kg/cm ³
Water solubility	Ca 0.5g/l @ 20°C
Partition coefficient: n-octanol/water	Log POW: -0.78
Autoignition temperature	Not applicable
Decomposition temperature	Ca 240°C @ heating rate: 10K/min
Viscosity	Not determined
Explosive properties	Not determined
Oxidizing properties	Not applicable

9.2 Other safety information

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Strong acids and oxidizing agents.

10.6 Hazardous decomposition products

Other decomposition products - no data available.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity: LD50 =8100mg/kg (rat), method: OECD 401

Acute inhalation toxicity: LC50 >4.9mg/l (rat), method: OECD 403

Acute dermal toxicity: LD50 >2000mg/kg (rat), method: OEC 402

Skin corrosion/irritation

Moderate irritant (rabbit), method: OECD 404

Serious eye damage/eye irritation

Severe irritant (rabbit), method: OECD 404

Respiratory or skin sensitization

Non-sensitizing (Guinea pig), method: OECD 406

Germ cell mutagenicity

Ames test: not mutagenic

In vivo micronucleus test: negative In vivo cytogenetic test: negative

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Embryotoxicity study in rabbits: no data available

Embryotoxicity study in rats: no data available

STOT - single exposure

No data available.

STOT - repeated exposure

Route of application: oral, NOAEL: 100mg/kg (90d, rats), method: OECD 408

Aspiration hazard

No data available.

Signs and Symptoms of Exposure

No data available.

Additional Information

No data available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Fish toxicity:

LC50 =0.1-1mg/l (96h, golden orfe), method OECD 202

Daphnia toxicity:

EC50 =1.8mg/l (48h, Daphnia magna), method OECD 202

Bacteria toxicity:

EC50 =141mg/l, method: OECD 209

12.2 Persistence and degradability

Biodegradation >80 %, method: OECD 302B / ISO 9888 / EEC 88/302C

Largely eliminated from the water by abiotic processes, e.g. adsorption to activated sludge.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

- 14.1 UN number**
ADR/RID: x
IMDG: x IATA: x
- 14.2 UN proper shipping name**
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods IATA:
Not dangerous goods
- 14.3 Transport hazard class(es)**
ADR/RID: x
IMDG: x
IATA: x
- 14.4 Packaging group**
ADR/RID: x IMDG: x
IATA: x
- 14.5 Environmental hazards**
ADR/RID: x
IMDG: Marine pollutant
IATA: x
- 14.6 Special precautions for user**
No data available.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- 15.2 Chemical Safety Assessment**

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Akoma International (UK) Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.