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

1.1 Product identifier

Trade name: METALURE A-31010 AE

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

This information is not available.

1.3 Details of the supplier of the safety data sheet

Company: ECKART GmbH
Guentersthal 4
91235 Hartenstein

Telephone: +499152770
Telefax: +499152777008
E-mail address: msds.eckart@altana.com

Responsible/issuing person

1.4 Emergency telephone number

GBK Gefahrgut Büro GmbH, Ingelheim, Germany:
From outside US: (001) 352-323-3500
(First call in English, response in your language is possible)
US & Canada (toll free): 1-800-5355-053

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

- Flammable liquids, Category 2: H225: Highly flammable liquid and vapour.
- Eye irritation, Category 2: H319: Causes serious eye irritation.
- Specific target organ toxicity - single exposure, Category 3, Central nervous system: H336: May cause drowsiness or dizziness.

Classification (67/548/EEC, 1999/45/EC)

- Highly flammable
- Irritant

R11: Highly flammable.
R36: Irritating to eyes.
R66: Repeated exposure may cause skin dryness or cracking.
R67: Vapours may cause drowsiness and dizziness.
2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms:

- Flammable
- Corrosive

Signal word: Danger

Hazard statements:
- H225: Highly flammable liquid and vapour.
- H319: Causes serious eye irritation.
- H336: May cause drowsiness or dizziness.

Supplemental Hazard Statements:
- EUH066: Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

Prevention:
- P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P261: Avoid breathing vapours.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
- P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
- P370 + P378: In case of fire: Use for extinction: Dry sand.

Storage:
- P403 + P235: Store in a well-ventilated place. Keep cool.

Hazardous components which must be listed on the label:
- 141-78-6: ethyl acetate

2.3 Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

METALURE A-31010 AE

Version 1.2  Revision Date 19.02.2014  Print Date 20.11.2018

<table>
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<tbody>
<tr>
<td>ethyl acetate</td>
<td>141-78-6 205-500-4</td>
<td>F; R11 F; R11 Xi; R36 Xi; R36 R66 R66 R67</td>
<td>Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336</td>
<td>&gt;= 50 - &lt;= 100</td>
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<td>Flam. Sol. 1; H228</td>
<td>&gt;= 10 - &lt; 20</td>
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<td>67-64-1 200-662-2</td>
<td>F; R11 Xi; R36 R66 R67</td>
<td>Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336</td>
<td>&gt;= 3 - &lt; 10</td>
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</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Move the victim to fresh air.
Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.
If unconscious place in recovery position and seek medical advice.

In case of skin contact : If on skin, rinse well with water.
If on clothes, remove clothes.
Wash off immediately with soap and plenty of water.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
Immediately flush eye(s) with plenty of water.

If swallowed

: Keep respiratory tract clear.
  Do not give milk or alcoholic beverages.
  Never give anything by mouth to an unconscious person.
  If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry sand, Special powder against metal fire

Unsuitable extinguishing media : ABC powder, Carbon dioxide (CO2), Water, Foam

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self contained breathing apparatus for fire fighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments.
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Evacuate personnel to safe areas.

6.2 Environmental precautions

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Do not flush with water. Use mechanical handling equipment. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may
be under pressure. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion: Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

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

#### Requirements for storage areas and containers:
- No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Earthing of containers and apparatuses is essential. Reaction with water liberates extremely flammable gas (hydrogen). Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking. Keep container closed when not in use.

Further information on storage conditions: Protect from humidity and water.

Advice on common storage: Do not store near acids. Do not store together with oxidizing and self-igniting products. Keep away from oxidising agents and strongly acid or alkaline materials. Never allow product to get in contact with water during storage. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Other data: No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

This information is not available.
SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
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<tr>
<td>ethyl acetate</td>
<td>141-78-6</td>
<td>TWA</td>
<td>200 ppm</td>
<td>2005-04-06</td>
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<td>400 ppm</td>
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<td>aluminium</td>
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<td>4 mg/m3</td>
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<td>GB EH40</td>
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</table>

Further information
The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust.
TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3.

Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

Further information

For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3.

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METALURE A-31010 AE

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<td>1,210 mg/m³</td>
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Further information

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<td>1,210 mg/m³</td>
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<td>acetone</td>
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<td></td>
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<td>3,620 mg/m³</td>
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DNEL:

ethyl acetate (141-78-6)

End Use: Workers
Exposure routes: Inhalation
Potential health effects: short term – local effects
Value: 1468 mg/m³

DNEL:

ethyl acetate (141-78-6)

End Use: Workers
Exposure routes: Inhalation
Potential health effects: short term – systemic effects
Value: 1468 mg/m³

DNEL:

ethyl acetate (141-78-6)

End Use: Workers
Exposure routes: Inhalation
Potential health effects: long term – local effects
Value: 734 mg/m³

DNEL:

ethyl acetate (141-78-6)

End Use: Workers
Exposure routes: Skin contact
Potential health effects: long term – systemic effects
Value: 63 mg/kg

DNEL:

ethyl acetate (141-78-6)

End Use: Workers
Exposure routes: Inhalation
Potential health effects: long term – systemic effects
Value: 734 mg/m³

DNEL:

ethyl acetate (141-78-6)

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: short term – local effects
Value: 734 mg/m³
DNEL: ethyl acetate (141-78-6)  
End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: short term – systemic effects  
Value: 734 mg/m³

DNEL: ethyl acetate (141-78-6)  
End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: long term – local effects  
Value: 367 mg/m³

DNEL: ethyl acetate (141-78-6)  
End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: long term – systemic effects  
Value: 37 mg/kg

DNEL: ethyl acetate (141-78-6)  
End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: long term – systemic effects  
Value: 367 mg/m³

DNEL: acetone (67-64-1)  
End Use: Workers  
Exposure routes: Skin contact  
Potential health effects: long term – systemic effects  
Value: 186 mg/kg

DNEL: acetone (67-64-1)  
End Use: Workers  
Exposure routes: Inhalation  
Potential health effects: long term – systemic effects  
Value: 1210 mg/m³

DNEL: acetone (67-64-1)  
End Use: Consumers  
Exposure routes: Ingestion  
Potential health effects: long term – systemic effects  
Value: 62 mg/kg
DNEL: acetone (67-64-1)  
End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: long term – systemic effects  
Value: 62 mg/kg

DNEL: acetone (67-64-1)  
End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: long term – systemic effects  
Value: 200 mg/m³

PNEC: ethyl acetate (141-78-6): Soil  
Value: 0.24 mg/kg

PNEC: ethyl acetate (141-78-6): STP  
Value: 650 mg/l

PNEC: acetone (67-64-1): Soil  
Value: 29.5 mg/kg

PNEC: acetone (67-64-1): Fresh water  
Value: 10.6 mg/l

PNEC: acetone (67-64-1): Fresh water sediment  
Value: 30.4 mg/kg

PNEC: acetone (67-64-1): Marine water  
Value: 1.06 mg/l

PNEC: acetone (67-64-1): Marine sediment  
Value: 3.04 mg/kg

8.2 Exposure controls

Personal protective equipment
   Eye protection : Eye wash bottle with pure water  
                   Wear face-shield and protective suit for abnormal processing
Hand protection
Material : Solvent-resistant gloves (butyl-rubber)

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

: The exact break through time can be obtained from the protective glove producer and this has to be observed.

: Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

: Recommended preventive skin protection

: Skin should be washed after contact.

: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

: Use suitable breathing protection if workplace concentration requires.

Environmental exposure controls
General advice : Prevent product from entering drains.

: Prevent further leakage or spillage if safe to do so.

: If the product contaminates rivers and lakes or drains inform respective authorities.
The product should not be allowed to enter drains, water courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : silver

Odour : characteristic

pH : no data available

Freezing point : no data available

Boiling point/boiling range : 76 °C

Flash point : -4 °C

Bulk density : no data available

Flammability (solid, gas) : no data available

Auto-flammability : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : no data available

Density : 1.08 g/cm³

Water solubility : no data available

Solubility in other solvents : no data available

Partition coefficient: n-octanol/water : no data available

Auto-ignition temperature : no data available

Thermal decomposition : no data available

Viscosity, dynamic : no data available

Viscosity, kinematic : no data available
SECTION 10: Stability and reactivity

10.1 Reactivity
No decomposition if stored and applied as directed.

10.2 Chemical stability
No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions
Hazardous reactions: Stable under recommended storage conditions.
Vapours may form explosive mixture with air.

10.4 Conditions to avoid
Conditions to avoid: Heat, flames and sparks.
Do not allow evaporation to dryness.

10.5 Incompatible materials
Materials to avoid: no data available

10.6 Hazardous decomposition products
Other information: no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity
no data available

Skin corrosion/irritation
Product
May cause skin irritation in susceptible persons.

**Serious eye damage/eye irritation**

**Product**
May cause irreversible eye damage.

**Respiratory or skin sensitisation**
no data available

**Carcinogenicity**
no data available

**Toxicity to reproduction/fertility**
no data available

**Reprod.Tox./Development/Teratogenicity**
no data available

**STOT - single exposure**
no data available

**STOT - repeated exposure**
no data available

**Aspiration toxicity**
no data available

**Further information**

**Product**
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.
SECTION 12: Ecological information

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Product:

Additional ecological information : no data available

SECTION 13: Disposal considerations

European Waste Catalogue : 08 01 11 - waste paint and varnish containing organic solvents or other dangerous substances

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging:
- Empty remaining contents.
- Dispose of as unused product.
- Do not re-use empty containers.
- Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number
ADR: 1263
IMDG: 1263
IATA: 1263

14.2 Proper shipping name
ADR: PAINT
IMDG: PAINT
IATA: PAINT

14.3 Transport hazard class
ADR: 3
IMDG: 3
IATA: 3

14.4 Packing group
ADR
Packaging group: III
Classification Code: F1
Hazard identification No: 33
Labels: 3
Tunnel restriction code: (D/E)

IMDG
Packaging group: III
Labels: 3
EmS Number: F-E, S-E

IATA
Packing instruction (cargo): 366
14.5 Environmental hazards

14.6 Special precautions for user

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15: Regulatory information

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

15.2 Chemical Safety Assessment

no data available

SECTION 16: Other information

Full text of R-Phrases

<table>
<thead>
<tr>
<th>R-Phrase</th>
<th>Description</th>
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<tbody>
<tr>
<td>R11</td>
<td>Highly flammable.</td>
</tr>
<tr>
<td>R36</td>
<td>Irritating to eyes.</td>
</tr>
<tr>
<td>R66</td>
<td>Repeated exposure may cause skin dryness or cracking.</td>
</tr>
<tr>
<td>R67</td>
<td>Vapours may cause drowsiness and dizziness.</td>
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Full text of H-Statements

<table>
<thead>
<tr>
<th>H-Statement</th>
<th>Description</th>
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<tbody>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H228</td>
<td>Flammable solid.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
</tbody>
</table>
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.