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

1.1 Product identifier
   Trade name : METALURE L-56161

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 3
   Specific target organ toxicity - single exposure, Category 3, Central nervous system
   Classification (67/548/EEC, 1999/45/EC)
   Flammable

2.2 Label elements
   Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms: 

Signal word: Warning

Hazard statements: 
- H226: Flammable liquid and vapour.
- H336: May cause drowsiness or dizziness.

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:
- 107-98-2: 1-methoxypropan-2-ol

2.3 Other hazards
No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Registration number</th>
<th>Classification (67/548/EEC)</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td>231-072-3</td>
<td></td>
<td>F; R11</td>
<td>Flam. Sol. 1; H228</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>acetone</td>
<td>67-64-1</td>
<td></td>
<td></td>
<td>F; R11</td>
<td>Flam. Liq. 2; H225</td>
<td>&gt;= 3 - &lt; 10</td>
</tr>
</tbody>
</table>
**SECTION 4: First aid measures**

4.1 Description of first aid measures

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

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

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

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

**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 : Evacuate personnel to safe areas.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low 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:
- Use mechanical handling equipment.
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- 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.

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. 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). Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures:
- Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage:
- Earthing of containers and apparatuses is essential. Reaction
areas and containers 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.

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.

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>
</tr>
</thead>
<tbody>
<tr>
<td>1-methoxypropa n-2-ol</td>
<td>107-98-2</td>
<td>STEL</td>
<td>150 ppm 568 mg/m³</td>
<td>2000-06-16</td>
<td>2000/39/EC</td>
</tr>
</tbody>
</table>

Further information:
- Identifies the possibility of significant uptake through the skin
- Indicative

<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>
</tr>
</thead>
<tbody>
<tr>
<td>1-methoxypropa n-2-ol</td>
<td>107-98-2</td>
<td>TWA</td>
<td>100 ppm 375 mg/m³</td>
<td>2000-06-16</td>
<td>2000/39/EC</td>
</tr>
</tbody>
</table>
Further information Identifies the possibility of significant uptake through the skin

| 1-methoxypropa n-2-ol (107-98-2) | TWA | 100 ppm 375 mg/m³ | 2005-04-06 | GB EH40 |

Further information Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

| 1-methoxypropa n-2-ol (107-98-2) | STEL | 150 ppm 560 mg/m³ | 2005-04-06 | GB EH40 |

Further information Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

<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>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td>TWA (Inhalable)</td>
<td>10 mg/m³</td>
<td>2011-12-01</td>
<td>GB EH40</td>
</tr>
</tbody>
</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.

| aluminium  | 7429-90-5 | TWA (Respirable) | 4 mg/m³ | 2011-12-01 | GB EH40 |

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.

| aluminium  | 7429-90-5 | TWA (Inhalable) | 10 mg/m³ | 2005-04-06 | GB EH40 |

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. 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.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Code</th>
<th>TWA (Respirable)</th>
<th>Limit</th>
<th>Date</th>
<th>Ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td>TWA</td>
<td>4 mg/m(^3)</td>
<td>2005-04-06</td>
<td>GB EH40</td>
</tr>
</tbody>
</table>

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. 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.

<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>
</tr>
</thead>
<tbody>
<tr>
<td>acetone</td>
<td>67-64-1</td>
<td>TWA</td>
<td>500 ppm 1,210 mg/m³</td>
<td>2000-06-16</td>
<td>2000/39/EC</td>
</tr>
</tbody>
</table>

Further information

| acetone    | 67-64-1 | TWA                           | 500 ppm 1,210 mg/m³ | 2005-04-06 | GB EH40 |
| acetone    | 67-64-1 | STEL                          | 1,500 ppm 3,620 mg/m³ | 2005-04-06 | GB EH40 |

**DNEL:**

**End Use:** Workers

**Potential health effects:** long term – systemic effects

**Value:** 186 mg/kg

**DNEL:**

**End Use:** Workers

**Exposure routes:** Inhalation

**Potential health effects:** long term – systemic effects

**Value:** 1210 mg/m³

**DNEL:**

**End Use:** Consumers

**Exposure routes:** Ingestion

**Potential health effects:** long term – systemic effects

**Value:** 62 mg/kg

**DNEL:**

**End Use:** Consumers

**Exposure routes:** Skin contact

**Potential health effects:** long term – systemic effects

**Value:** 62 mg/kg

**DNEL:**

**End Use:** Consumers

**Exposure routes:** Inhalation

**Potential health effects:** long term – systemic effects

**Value:** 200 mg/m³
METALURE L-56161

End Use: Workers
Exposure routes: Inhalation
Potential health effects: short term – local effects
Value: 553.5 mg/m³

DNEL:
- 1-methoxypropan-2-ol (107-98-2): End Use: Workers
  Exposure routes: Skin contact
  Potential health effects: long term – systemic effects
  Value: 50.6 mg/kg

DNEL:
- 1-methoxypropan-2-ol (107-98-2): End Use: Workers
  Exposure routes: Inhalation
  Potential health effects: long term – systemic effects
  Value: 369 mg/m³

DNEL:
- 1-methoxypropan-2-ol (107-98-2): End Use: Consumers
  Exposure routes: Ingestion
  Potential health effects: long term – systemic effects
  Value: 3.3 mg/kg

DNEL:
- 1-methoxypropan-2-ol (107-98-2): End Use: Consumers
  Exposure routes: Skin contact
  Potential health effects: long term – systemic effects
  Value: 18.1 mg/kg

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
8.2 Exposure controls

**Personal protective equipment**

Eye protection : Goggles

: Eye wash bottle with pure water

Hand protection

Material : Solvent-resistant gloves (butyl-rubber)

Remarks : 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.
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: Use suitable breathing protection if workplace concentration requires.

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

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.

Water: 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: 120 °C
Flash point: 28 °C
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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 : 0.9 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
Flow time : no data available

9.2 Other information
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 : Contact with acids and alkalis may release hydrogen.
Stable under recommended storage conditions.
Vapours may form explosive mixture with air.

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

**10.5 Incompatible materials**

Materials to avoid: Acids, Bases, Oxidizing agents

**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**

no data available

**Serious eye damage/eye irritation**

no data available

**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
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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
14.4 Packing group

ADR
Packaging group : III
Classification Code : F1
Hazard identification No : 30
Labels : 3
Tunnel restriction code : (D/E)

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

IATA
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355
Packing instruction (LQ) : Y344
Packaging group : III
Labels : 3

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
Water contaminating class (Germany) : WGK 1 slightly water endangering
15.2 Chemical Safety Assessment

no data available

SECTION 16: Other information

Full text of R-Phrases

R10 Flammable.
R11 Highly flammable.
R36 Irritating to eyes.
R37/38 Irritating to respiratory system and skin.
R41 Risk of serious damage to eyes.
R61 May cause harm to the unborn child.
R66 Repeated exposure may cause skin dryness or cracking.

Full text of H-Statements

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H228 Flammable solid.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H360D May damage the unborn child.

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.