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

Name of product
Zinc Alu Spray (GB)
Code-Nr. 11002

Manufacturer/distributor
WEICON GmbH & Co. KG
Königsberger Straße 255, DE-48157 Münster
Postbox 84 60, DE-48045 Münster
Phone ++49(0)251 / 9322 - 0, Fax ++49(0)251 / 9322-244
E-Mail : info@weicon.de
Internet : www.weicon.de

Advice
Abteilung Angebote, Verkauf, Export
Phone ++49(0)251 / 9322 - 0

Emergency advice
Giftnotruf Bonn: Bei Vergiftungen (in case of poisoning)
Phone ++49(0)228-19 240

Recommended intended purpose(s)
Technical Aerosols

2. HAZARDS IDENTIFICATION

Classification
F+; R12
Xi; R36
N; R51/53

R-phrases
12 Extremely flammable.
36 Irritating to eyes.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization
Compounds

Hazardous ingredients

<table>
<thead>
<tr>
<th>CAS No</th>
<th>EC No</th>
<th>Name</th>
<th>[% weight]</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>200-662-2</td>
<td>acetone</td>
<td>10 - 25</td>
<td>F R11; Xi R36; R66; R67</td>
</tr>
<tr>
<td>74-98-6</td>
<td>200-827-9</td>
<td>propane</td>
<td>10 - 25</td>
<td>F+ R12</td>
</tr>
<tr>
<td>106-97-8</td>
<td>203-448-7</td>
<td>butane</td>
<td>10 - 25</td>
<td>F+ R12</td>
</tr>
<tr>
<td>231-072-3</td>
<td></td>
<td>aluminium powder (stabilised)</td>
<td>2.5 - 10</td>
<td>F R15; R10</td>
</tr>
<tr>
<td>141-78-6</td>
<td>205-500-4</td>
<td>ethyl-acetate</td>
<td>10 - 25</td>
<td>F R11; Xi R36; R66; R67</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>215-535-7</td>
<td>xylene</td>
<td>2.5 - 10</td>
<td>R10; Xn R20/21; Xi R38</td>
</tr>
<tr>
<td>64742-48-9</td>
<td>265-150-3</td>
<td>Naphtha (petroleum), hydrodetailed heavy; Low boiling point hydrogen treated naphtha</td>
<td>&lt;= 2.5</td>
<td>Xn, R 10-65-66-67</td>
</tr>
<tr>
<td>7440-66-6</td>
<td>231-175-3</td>
<td>zinc powder - zinc dust (stabilized)</td>
<td>2.5 - 10</td>
<td>N R50/53</td>
</tr>
<tr>
<td>64742-82-1</td>
<td>265-185-4</td>
<td>Naphtha (petroleum), hydrodetailed heavy (NOTA P)</td>
<td>&lt; 2.5</td>
<td>Xn R65; R66-67; R10; N R51/53</td>
</tr>
<tr>
<td>64742-95-6</td>
<td>265-199-0</td>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>2.5 - 10</td>
<td>R10; Xn R65; Xi R37; N R51/53; R66; R67</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

General information
Remove contaminated soaked clothing immediately.

In case of inhalation
Remove the casualty into fresh air and keep him immobile. In the event of symptoms refer for medical treatment.

In case of skin contact
In case of contact with skin wash off with soap and water.

In case of eye contact
In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion
Do not induce vomiting. Refer to medical treatment.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Foam
Dry powder
Carbon dioxide

Extinguishing media which must not be used for safety reasons
water

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases
Danger of bursting
Fire gas of organic material has to be classed invariably as respiratory poison.

Special protective equipment for fire-fighters
Use breathing apparatus with independent air supply. Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus.

Additional information
Vapours are heavier than air and will spread on the ground. Cool endangered containers with water spray jet.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Ensure adequate ventilation. Use personal protective clothing. Keep away sources of ignition.

Environmental precautions
Do not discharge into the drains or bodies of water.

Methods for cleaning up
Take up with absorbent material. After taking up the material dispose according to regulation.

Additional Information
Sort out leaky cans and dispose according to regulations.
7. HANDLING AND STORAGE

**Advice on safe handling**
Ventilate closed rooms at ground level.
Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

**Advice on protection against fire and explosion**
Keep away from sources of ignition - No smoking
Do not spray on a naked flame or any incandescent material.
Pressurized container.
Do not pierce or burn even after use.
The product is combustible.
Vapours can form an explosive mixture with air.
Avoid effect of heat.

**Requirements for storage rooms and vessels**
Keep in closed original container.
Adhere to administrative regulations relating to storage of compressed gas cylinders / containers.

**Further information on storage conditions**
Protect from direct solar radiation.
Keep container in a well-ventilated place
Storage temperature may not exceed 50°C (=122°F).
Store in a dry place.
Keep in a cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with occupational exposure limits to be monitored**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Name</th>
<th>Code</th>
<th>[mg/m3]</th>
<th>[ppm]</th>
<th>Spitzenb.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>Acetone</td>
<td>8 hours</td>
<td>1210</td>
<td>500</td>
<td>EH40/2005</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short-term</td>
<td>3620</td>
<td>1500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7429-90-5</td>
<td>Aluminium metal: inhalable dust</td>
<td>8 hours</td>
<td>10</td>
<td></td>
<td>EH40/2005</td>
<td></td>
</tr>
<tr>
<td>7429-90-5</td>
<td>Aluminium metal: respirable dust</td>
<td>8 hours</td>
<td>4</td>
<td></td>
<td>EH40/2005</td>
<td></td>
</tr>
<tr>
<td>106-97-8</td>
<td>Butane</td>
<td>8 hours</td>
<td>1450</td>
<td>600</td>
<td>EH40/2005</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short-term</td>
<td>1810</td>
<td>750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>141-78-6</td>
<td>Ethyl acetate</td>
<td>8 hours</td>
<td>220</td>
<td>50</td>
<td>EH40/2005</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short-term</td>
<td>441</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene, o-, m-, p- or mixed isomers</td>
<td>8 hours</td>
<td>220</td>
<td>50</td>
<td>EH40/2005</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short-term</td>
<td>441</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC or 2006/15/EC)**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Name</th>
<th>Code</th>
<th>[mg/m3]</th>
<th>[ppm]</th>
<th>Remark</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1330-20-7</td>
<td>xylene, mixed isomers, pure</td>
<td>8 hours</td>
<td>221</td>
<td>50</td>
<td>skin</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short-term</td>
<td>442</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67-64-1</td>
<td>acetone</td>
<td>8 hours</td>
<td>1210</td>
<td>500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Respiratory protection**
If ventilation insufficient, wear respiratory protection.
Short term: filter apparatus, filter A

**Hand protection**
In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.
Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Nitrile rubber; 0.4mm; 480min/60min
Chemical protective gloves must be chosen carefully in view of their design and depending on the dependence on the concentration and amounts of dangerous goods used in the specific working tasks.

**Eye protection**
safety goggles
Skin protection
protective clothing

**General protective measures**
Avoid contact with eyes and skin
Do not inhale gases/vapours/aerosols.

**Hygiene measures**
At work do not eat, drink, smoke or take drugs.
Wash hands before breaks and after work.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Temperature</th>
<th>Method</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>aerosol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>silver-grey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>solvent-like</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point</td>
<td>-44 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>-97 °C</td>
<td></td>
<td>DIN 53213</td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>365 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>1.5 Vol-%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>13 Vol-%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>8300 hPa</td>
<td>20 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>not determined</td>
<td>20 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in water</td>
<td>immiscible</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Explosive properties**
The product is considered non-explosive; nevertheless explosive vapour/air mixtures can be generated.

### 10. STABILITY AND REACTIVITY

**Conditions to avoid**
Keep away from heat.
Formation of inflammable vapour-air mixtures.
Hydrogen formation in heat under influence of acids and alkalies.

**Materials to avoid**
Reactions with acids, alkalies and oxidising agents.

**Hazardous decomposition products**
carbon monoxide and carbon dioxide
Hydrogen

**Thermal decomposition**
Remark No decomposition if used as directed.
11. TOXICOLOGICAL INFORMATION

Acute toxicity/Irritability/Sensitization

<table>
<thead>
<tr>
<th>Value/Validation</th>
<th>Species</th>
<th>Method</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritability skin</td>
<td>non-irritant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritability eye</td>
<td>irritant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information
Labelling in compliance with the assessment procedure specified in the EC guidelines 1999/45/EC.

12. ECOLOGICAL INFORMATION

General regulation
Do not allow uncontrolled leakage of product into the environment. Product is not allowed to be discharged into aquatic environment.

13. DISPOSAL CONSIDERATIONS

Waste code No. Name of waste
15 01 10* packaging containing residues of or contaminated by dangerous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 91/689/EEC on hazardous waste.

Recommendations for the product
Remove in accordance with local official regulations. There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany, the Recycling and Waste Management Act 8 KrW-/AbfG) stipulates recycling as a requirement.

Recommendations for packaging
Dispose of according to the local waste regulations.

General information
For proper waste disposal a complete emptying of the tin is necessary.

14. TRANSPORT INFORMATION

Land and inland navigation transport ADR/RID
UN 1950 AEROSOLS, 2.1, (D), Classification code: 5F
transport in "limited quantities" according to 3.4 ADR LQ2 is possible

Marine transport IMDG
UN 1950 AEROSOLS, 2.1
Transport as limited quantities according to 3.4 IMDG Code is possible.

Air transport ICAO/IATA-DGR
UN 1950 Aerosols, flammable, 2.1

15. REGULATORY INFORMATION

Remarks for classification
The product is classified and labelled in accordance with EC directives/German regulations on dangerous substances.
**Classification**

F+  Extremely flammable
Xi  Irritant
N  Dangerous for the environment

**R-phrases**

12  Extremely flammable.
36  Irritating to eyes.
51/53  Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
66  Repeated exposure may cause skin dryness or cracking.
67  Vapours may cause drowsiness and dizziness.

**S-phrases**

23.4  Do not breathe spray.
29/56  Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.
36/39  Wear suitable protective clothing and eye/face protection.
51  Use only in well-ventilated areas.

**Special labelling for certain preparations**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

Without sufficient ventilation the formation of explosive vapour/air mixtures cannot be excluded. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

**VOC standard**

VOC value  0.147 g/L

**16. OTHER INFORMATION**

**Recommended uses and restrictions**

National and local regulations concerning chemicals shall be observed.

**Further information**

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

**Wording of the R-phrases specified in chapter 3 (not the classification of the formulation!)**

R 10  Flammable.
R 11  Highly flammable.
R 12  Extremely flammable.
R 15  Contact with water liberates extremely flammable gases.
R 20/21  Harmful by inhalation and in contact with skin.
R 36  Irritating to eyes.
R 37  Irritating to respiratory system.
R 38  Irritating to skin.
R 50/53  Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 51/53  Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 65  Harmful: may cause lung damage if swallowed.
R 66  Repeated exposure may cause skin dryness or cracking.
R 67  Vapours may cause drowsiness and dizziness.