SAFETY DATA SHEET

Sample Aluminium Spray 400 ml 17-09021 400 ml

Version 1.0 Revision Date: 03/21/2018 SDS Number: 102000000137 Date of last issue: -
Date of first issue: 03/21/2018

SECTION 1. IDENTIFICATION

Product name: Sample Aluminium Spray 400 ml 17-09021 400 ml
Product code: 08844605Z

Manufacturer or supplier's details
Company name of supplier: ECKART GmbH
Address: Guentersthal 4
Hartenstein 91235

Telephone: +499152770
Telefax: +499152777008

Emergency telephone number: CHEMTREC: 800-424-9300
CHEMTREC: 1-703-527-3387 (International)

GBK Gefahrgut Buero 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

GHS classification in accordance with the Hazardous Products Regulations
Flammable aerosols: Category 1
Eye irritation: Category 2A
Specific target organ toxicity - single exposure: Category 3 (Central nervous system)
Specific target organ toxicity - repeated exposure: Category 2

GHS label elements
Hazard pictograms

Signal word: Danger

Hazard statements:
H222 Extremely flammable aerosol.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P260 Do not breathe dust / fume / gas / mist / vapours / spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear eye protection / face protection.

Response:
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER / doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice / attention if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice / attention.

Storage:
P403 + P233 Store in a well-ventilated place. Keep
SAMPLE ALUMINIUM SPRAY 400 ml 17-09021 400 ml

P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:
- Acetic acid ethyl ester
- 2-Propanone
- Benzene, dimethyl-
- Acetic acid, butyl ester

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Acetic acid ethyl ester</td>
<td>141-78-6</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>2-Propanone</td>
<td>67-64-1</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Benzene, dimethyl-</td>
<td>1330-20-7</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Acetic acid, butyl ester</td>
<td>123-86-4</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>64742-95-6</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>64742-48-9</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice: 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 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.

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.

Most important symptoms and effects, both acute and delayed:
- Causes serious eye irritation.
- May cause drowsiness or dizziness.
- May cause damage to organs through prolonged or repeated exposure.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:
- Dry sand
- Carbon dioxide (CO2)
- Alcohol-resistant foam
- ABC powder

Unsuitable extinguishing media:
- Water

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

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.

Special protective equipment for firefighters:
- Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Use personal protective equipment.
- Avoid breathing dust.
- Ensure adequate ventilation.
- Remove all sources of ignition.
- Evacuate personnel to safe areas.
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.

Methods and materials for containment and cleaning up:
- Do not flush with water.

SECTION 7. HANDLING AND STORAGE

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.

Advice on safe handling:
- 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.
- Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage:
- BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
- 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.
## SECTIONS 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>600 ppm</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>750 ppm</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA EV</td>
<td>800 ppm</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>800 ppm</td>
<td>CA ON OEL</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA EV</td>
<td>1,000 ppm</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>CA ON OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>1,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Acetic acid ethyl ester</td>
<td>141-78-6</td>
<td>TWA</td>
<td>400 ppm</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA EV</td>
<td>400 ppm</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>2-Propanone</td>
<td>67-64-1</td>
<td>TWA</td>
<td>500 ppm</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>750 ppm</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>750 ppm</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>250 ppm</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>500 ppm</td>
<td>CA BC OEL</td>
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<tr>
<td></td>
<td></td>
<td>STEV</td>
<td>1,000 ppm</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>2,380 mg/m³</td>
<td>CA QC OEL</td>
</tr>
</tbody>
</table>
# SAFETY DATA SHEET

**Sample Aluminium Spray 400 ml 17-09021 400 ml**

<table>
<thead>
<tr>
<th>Benzene, dimethyl-</th>
<th>TWA</th>
<th>100 ppm</th>
<th>CA AB OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STEL</td>
<td>150 ppm</td>
<td>651 mg/m³</td>
</tr>
<tr>
<td>Aluminum</td>
<td>TWA</td>
<td>100 ppm</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>150 ppm</td>
<td>CA BC OEL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aluminum</th>
<th>TWA EV</th>
<th>10 mg/m³</th>
<th>CA QC OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td>(Respirable)</td>
<td>1 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td>TWA (Dust)</td>
<td>10 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td>TWA EV</td>
<td>10 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td>(Respirable)</td>
<td>1 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td>(Aluminium)</td>
<td>5 mg/m³</td>
<td>CA QC OEL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acetic acid, butyl ester</th>
<th>TWA</th>
<th>150 ppm</th>
<th>713 mg/m³</th>
<th>CA AB OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STEL</td>
<td>200 ppm</td>
<td>950 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>20 ppm</td>
<td>CA BC OEL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA EV</td>
<td>150 ppm</td>
<td>CA QC OEL</td>
<td></td>
</tr>
</tbody>
</table>
## Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td>67-64-1</td>
<td>Acetone</td>
<td>Urine</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>25 mg/l</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>Benzene, dimethyl-</td>
<td>1330-20-7</td>
<td>Methylhippuric acids</td>
<td>Urine</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>1.5 g/g creatinine</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,500 mg/g</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>

## Personal protective equipment

**Respiratory protection**: In the case of vapor formation use a respirator with an approved filter. In the case of dust or aerosol formation use respirator with an
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.

Eye protection: Tightly fitting safety goggles

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

Hygiene measures: When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: aerosol

Colour: No data available

Odour: characteristic

Odour Threshold: No data available

pH: No data available

Melting point/freezing point: No data available

Boiling point/boiling range: -44 °C

Flash point: -97 °C
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper explosion limit / Upper flammability limit: No data available
Lower explosion limit / Lower flammability limit: No data available
Vapour pressure: No data available
Relative density: No data available
Solubility(ies):
   - Water solubility: insoluble
   - Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: No decomposition if stored and applied as directed.
Chemical stability: No decomposition if stored and applied as directed.
Possibility of hazardous reactions:
   Stable under recommended storage conditions.
   Vapours may form explosive mixture with air.
Conditions to avoid: Heat, flames and sparks.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Components:

Propane:
Acute inhalation toxicity: LC50 (Rat): 800000 ppm
   Exposure time: 0.25 h

Acetic acid ethyl ester:
Acute oral toxicity: (Rat): 5,620 mg/kg
Acute inhalation toxicity: LC50 (Rat): 56 mg/l
   Exposure time: 4 h
   Test atmosphere: vapour
Acute dermal toxicity : LD50 (Rabbit): > 18,000 mg/kg

2-Propanone:
Acute oral toxicity : LD50 (Rabbit): 4,700 - 5,800 mg/kg
(Mouse): 3,000 mg/kg
(Rat): 9,800 mg/kg
Acute inhalation toxicity : LC50 (Rat): 76 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Benzene, dimethyl-:
Acute dermal toxicity : Acute toxicity estimate: 1,100 mg/kg
Method: Converted acute toxicity point estimate

Solvent naphtha (petroleum), light arom.:
Acute oral toxicity : LD50 (Rat): 3,492 mg/kg
Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg

Naphtha (petroleum), hydrotreated heavy:
Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity : LC50 (Rat): Test atmosphere: vapour
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.
Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

Skin corrosion/irritation
Not classified based on available information.
Components:
2-Propanone:
Remarks: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.

Serious eye damage/eye irritation
Causes serious eye irritation.

Components:
2-Propanone:
Remarks: Severe eye irritation

Benzene, dimethyl-
Result: Eye irritation

Respiratory or skin sensitisation
Skin sensitisation
Not classified based on available information.

Respiratory sensitisation
Not classified based on available information.

Components:
Benzene, dimethyl-
Assessment: Harmful in contact with skin or if inhaled.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
May cause drowsiness or dizziness.
Components:
Benzene, dimethyl-
Assessment: May cause respiratory irritation.

Acetic acid, butyl ester:
Assessment: May cause drowsiness or dizziness.

Solvent naphtha (petroleum), light arom.:
Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.

STOT - repeated exposure
May cause damage to organs through prolonged or repeated exposure.
Components:
Benzene, dimethyl-
Assessment: May cause damage to organs through prolonged or repeated exposure.

Components:
Benzene, dimethyl-
Repeated dose toxicity - : Harmful in contact with skin or if inhaled.
Assessment

Aspiration toxicity
Not classified based on available information.
Components:
Benzene, dimethyl-
May be fatal if swallowed and enters airways.

Solvent naphtha (petroleum), light arom.:
May be fatal if swallowed and enters airways.

Further information
Components:
Naphtha (petroleum), hydrotreated heavy:
Remarks: Solvents may degrease the skin.
SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

- **Acetic acid ethyl ester:**
  Toxicity to daphnia and other aquatic invertebrates: (Daphnia (water flea)): 717 mg/l

- **2-Propanone:**
  Toxicity to daphnia and other aquatic invertebrates: (Daphnia magna (Water flea)): 21,600 mg/l

- **Solvent naphtha (petroleum), light arom.:**

**Ecotoxicology Assessment**

Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Other adverse effects**

No data available

**Components:**

- **Naphtha (petroleum), hydrotreated heavy:**
  No data available

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. In accordance with local and national regulations.
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. In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
UN/ID No.: UN 1950
Proper shipping name: Aerosols, flammable
Class: 2.1
Packing group: Not assigned by regulation
Labels: Flammable gas
Packing instruction (cargo aircraft): 203
Packing instruction (passenger aircraft): 203

IMDG-Code
UN number: UN 1950
Proper shipping name: AEROSOLS
Class: 2.1
Packing group: Not assigned by regulation
Labels: 2.1
EmS Code: F-D, S-U
Marine pollutant: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations

TDG
UN number: UN 1950
Proper shipping name: AEROSOLS
Class: 2.1
Packing group: Not assigned by regulation
Labels: 2.1
ERG Code: 126
Marine pollutant: no
SECTION 15. REGULATORY INFORMATION

Canadian PBT Chemicals: This product contains the following components on the DSL that are classified as Persistent, Bioaccumulative and/or Toxic (PBT) under CEPA:
- Naphtha (petroleum), hydrotreated heavy

NPRI Components: Benzene, dimethyl-
- Aluminum
- 1-Butanol
- Benzene, ethyl-
- 2-Propanol

The components of this product are reported in the following inventories:
- DSL: This product contains one or several components that are not on the Canadian DSL nor NDSL.
- TSCA: Not On TSCA Inventory

Canadian lists
No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations
- ACGIH: USA. ACGIH Threshold Limit Values (TLV)
- ACGIH BEI: ACGIH - Biological Exposure Indices (BEI)
- CA BC OEL: Canada. British Columbia OEL
- CA ON OEL: Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
- CA QC OEL: Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
- ACGIH / TWA: 8-hour, time-weighted average
- ACGIH / STEL: Short-term exposure limit
- CA AB OEL / TWA: 8-hour Occupational exposure limit
- CA AB OEL / STEL: 15-minute occupational exposure limit
- CA BC OEL / TWA: 8-hour time weighted average
- CA BC OEL / STEL: short-term exposure limit
- CA ON OEL / TWA: Time-Weighted Average Limit (TWA)
- CA QC OEL / TWAEV: Time-weighted average exposure value
- CA QC OEL / STEV: Short-term exposure value
SAFETY DATA SHEET

Sample Aluminium Spray 400 ml 17-09021 400 ml

Revision Date: 03/21/2018
SDS Number: 102000000137
Date of last issue: -
Date of first issue: 03/21/2018

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.

CA / EN