SECTION 1. PRODUCT AND COMPANY 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 Gefahr-gut 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
Aerosols: Category 1
Skin irritation: Category 3
Eye irritation: Category 2A
Carcinogenicity: Category 2
Specific target organ toxicity - single exposure: Category 3 (Central nervous system)
Specific target organ toxicity - repeated exposure: Category 2
Chronic aquatic toxicity: Category 3
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

GHS label elements

Hazard pictograms : 

Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H316 Causes mild skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

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:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
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.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P304 + P340 + P312 IF INHALED: Remove victim to fresh air
and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician 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.

P308 + P313  IF exposed or concerned: Get medical advice/attention.

P332 + P313  If skin irritation occurs: Get medical advice/attention.

Storage:
P403 + P233  Store in a well-ventilated place. Keep container tightly closed.
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
- Solvent naphtha (petroleum), light arom.

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>
</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 mild skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of causing cancer. 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 : Do not allow run-off from fire fighting to enter drains or water
firefighting courses.

Specific extinguishing methods: 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. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low 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.

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

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.

Further information on storage stability: No decomposition if stored and applied as directed.

### SECTION 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>VLE-PPT</td>
<td>1,000 ppm</td>
<td>NOM-010-STPS-2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>1,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>VLE-PPT</td>
<td>1,000 ppm</td>
<td>NOM-010-STPS-2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Acetic acid ethyl ester</td>
<td>141-78-6</td>
<td>VLE-PPT</td>
<td>400 ppm</td>
<td>NOM-010-STPS-2014</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</td>
<td>50 mg/l</td>
<td>MX BEI</td>
</tr>
<tr>
<td>Benzene, dimethyl-</td>
<td>1330-20-7</td>
<td>VLE-PPT</td>
<td>100 ppm</td>
<td>NOM-010-STPS-2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>LMPE-PPT</td>
<td>10 mg/m3</td>
<td>MX OEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 mg/m3</td>
<td>MX OEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 mg/m3</td>
<td>ACGIH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetic acid, butyl ester</td>
<td>123-86-4</td>
<td>VLE-PPT</td>
<td>150 ppm</td>
<td>NOM-010-STPS-2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>64742-95-6</td>
<td>TWA</td>
<td>200 mg/m3 (total hydrocarbon vapor)</td>
<td>ACGIH</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Personal protective equipment

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

**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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Acetone</th>
<th>Benzene, dimethyl-</th>
<th>Methylhippuric acid</th>
<th>Methylhippuric acids</th>
<th>Methylhippuric acids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>25 mg/l</td>
<td>1.5 g/g creatinine</td>
<td>1.5 g/g creatinine</td>
<td>1,500 mg/g</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>25 mg/l</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>Benzene, dimethyl-</td>
<td>1.5 g/g creatinine</td>
<td>MX BEI</td>
</tr>
<tr>
<td>Methylhippuric acid</td>
<td>1.5 g/g creatinine</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>Methylhippuric acids</td>
<td>1,500 mg/g</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>
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.

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): 80000 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 inhalation toxicity: Acute toxicity estimate: 11 mg/l
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

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

Acute toxicity estimate: 1,295 mg/kg  
Method: Calculation method

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

Acute dermal toxicity:  
LD50 (Rabbit): > 3,160 mg/kg

**Skin corrosion/irritation**
Causes mild skin irritation.

**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
Suspected of causing cancer.

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**

**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
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
NOM-002-SCT

UN number : UN 1950
Proper shipping name : AEROSOLS
Class : 2.1
Packing group : Not assigned by regulation
Labels : 2.1

Special precautions for user
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
NOM-165-SEMARNAT-2013, Norm establishing a list of substances subject to report for the Registry of Emissions and Pollutant Transfer

Components | CAS-No. | MPU (kg/year) | Transfer/Release (kg/year)
--- | --- | --- | ---
Benzene, dimethyl- | 1330-20-7 | 5000 kg/year | 1000 kg/year

MPU: Applicable reporting threshold when the substance, pure or in mixture in a composition of more than 1% by weight, is used for industrial activities at facilities that are subject to report or are produced by them

Federal Law for the control of chemical precursors, essential chemical products and machinery for producing capsules, tablets and pills:

2-Propanone

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

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
MX BEI : Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for workers occupationally exposed to chemical agents
MX OEL : Mexico. Occupational Exposure Limits
NOM-010-STPS-2014 : Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and
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

Control - Appendix 1 Occupational Exposure Limits

ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
MX OEL / LMPE-PPT : Time weighted average
NOM-010-STPS-2014 / VLE-PPT : Time weighted average limit value
NOM-010-STPS-2014 / VLE-CT : Short term exposure limit value

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 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.

MX / EN