

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

METALURE A-42010 BG

Version 2.0

Revision Date 05.12.2019

Print Date 07.08.2020

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

1.1 Product identifier

Trade name : METALURE A-42010 BG
Material number : 052616IA0

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 :

Telephone :
Telefax :
E-mail address : msds.eckart@altana.com
Responsible/issuing person

1.4 Emergency telephone number

NCEC:

(contract no.: ECKART29003-NCEC)

+44 1235 239671 (Middle East/Africa, call and response in your language)

+1 215 207 0061 (Americas, call and response in your language)

+65 3158 1074 (Asia-Pacific, call and response in your language)

SECTION 2: Hazards identification

GHS Classification

: Flammable liquids, Category 3, H226
Acute toxicity, Category 4, Oral, H302
Acute toxicity, Category 4, Inhalation, H332

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Acute toxicity, Category 4, Dermal, H312
 Skin irritation, Category 2, H315
 Eye irritation, Category 2A, H319

GHS-Labeling

Symbol(s)



Signal word

: Warning

Hazard statements

: H226: Flammable liquid and vapour.
 H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled.
 H315: Causes skin irritation.
 H319: Causes serious eye irritation.

Precautionary statements

: **Prevention:**
 P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P280 Wear protective gloves/ eye protection/ face protection.
Response:
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P370 + P378 In case of fire: Use for extinction: Dry sand.
 P370 + P378 In case of fire: Use for extinction: Special powder for metal fires.
Storage:
 P403 + P235 Store in a well-ventilated place. Keep cool.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

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Hazardous components which must be listed on the label

| | |
|-----------------|----------|
| Identification | CAS-No. |
| 2-butoxyethanol | 111-76-2 |

SECTION 3: Composition/information on ingredients

Substance name : metalure a-42010 bg

Substance No. :

Hazardous components

| Chemical name | CAS-No. EINECS-No. | Classification and labelling | Concentration[%] |
|-------------------------------|------------------------|---|------------------|
| 2-butoxyethanol | 111-76-2 203-905-0 | Flam. Liq.;4;H227 Acute Tox.;4;H302 Acute Tox.;4;H312 Acute Tox.;4;H332 Skin Irrit.;2;H315 Eye Irrit.;2;H319 | 60 - 100 |
| aluminium powder (stabilised) | 7429-90-5 231-072-3 | Flam. Sol.;1;H228 | 10 - 30 |
| acetone | 67-64-1 200-662-2 | Flam. Liq.;2;H225 Eye Irrit.;2A;H319 STOT SE;3;H336 | 1 - 5 |

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

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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 : If unconscious, place in recovery position and seek medical
advice.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with soap and plenty of water.
- If skin irritation persists, call a physician.
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.
- 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.

4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

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This information is not available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Dry sand, ABC powder, Foam

Unsuitable extinguishing media : High volume water jet

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 : In the event of fire, wear self-contained breathing apparatus.

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

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

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SECTION 8: Exposure controls/personal protection
8.1 Control parameters
Germany:

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Update | Basis |
|---|-----------|---|---------------------------------|------------|-------------|
| 2-butoxyethanol | 111-76-2 | TWA | 20 ppm 98 mg/m ³ | 2000-06-16 | 2000/39/EC |
| Further information | | Identifies the possibility of significant uptake through the skin Indicative | | | |
| 2-butoxyethanol | 111-76-2 | STEL | 50 ppm 246 mg/m ³ | 2000-06-16 | 2000/39/EC |
| Further information | | Identifies the possibility of significant uptake through the skin Indicative | | | |
| 2-butoxyethanol | 111-76-2 | AGW | 10 ppm 49 mg/m ³ | 2012-01-12 | DE TRGS 900 |
| Peak-limit: excursion factor (category) | | 4;(II) | | | |
| Further information | | Commission for dangerous substances Skin absorption When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child | | | |
| aluminium powder (stabilised) | 7429-90-5 | AGW (Inhalable fraction) | 10 mg/m ³ | 2014-04-02 | DE TRGS 900 |
| Peak-limit: excursion factor (category) | | 2;(II) | | | |
| Further information | | Commission for dangerous substances Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission). | | | |
| aluminium | 7429-90-5 | AGW (Alveolate) | 1,25 mg/m ³ | 2014-04-02 | DE TRGS 900 |

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| | | | | | |
|---|---------|--|------------------------------------|------------|-------------|
| powder (stabilised) | | fraction) | | | |
| Peak-limit: excursion factor (category) | | 2;(II) | | | |
| Further information | | Commission for dangerous substancesSenate commission for the review of compounds at the work place dangerous for the health (MAK-commission). | | | |
| acetone | 67-64-1 | TWA | 500 ppm 1 210 mg/m ³ | 2000-06-16 | 2000/39/EC |
| Further information | | Indicative | | | |
| acetone | 67-64-1 | AGW | 500 ppm 1 200 mg/m ³ | 2015-03-02 | DE TRGS 900 |
| Peak-limit: excursion factor (category) | | 2;(I) | | | |
| Further information | | Commission for dangerous substancesSenate commission for the review of compounds at the work place dangerous for the health (MAK-commission).European Union (The EU has established a limit value: deviations in value and peak limit are possible)When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child | | | |

United States of America (USA):

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Update | Basis |
|-----------------|----------|-------------------------------|---------------------------------|------------|-------|
| 2-butoxyethanol | 111-76-2 | TWA | 20 ppm | 2013-03-01 | |
| 2-butoxyethanol | 111-76-2 | TWA | 5 ppm 24 mg/m ³ | 2013-10-08 | |
| 2-butoxyethanol | 111-76-2 | TWA | 50 ppm 240 mg/m ³ | 1997-08-04 | |
| 2- | 111-76-2 | TWA | 25 ppm 120 mg/m ³ | 1989-01-19 | |

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| | | | | | |
|-------------------------------------|-----------|-----------------------------------|--|------------|--|
| butoxyethano l | | | | | |
| 2- butoxyethano l | 111-76-2 | PEL | 20 ppm 97 mg/m ³ | 2014-11-26 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust) | 50 Million particles per cubic foot | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable) | 5 mg/m ³ | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust) | 15 mg/m ³ | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total) | 10 mg/m ³ | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction) | 5 mg/m ³ | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction) | 15 Million particles per cubic foot | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (Total dust) | 10 mg/m ³ | 2014-11-26 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (respirable dust fraction) | 5 mg/m ³ | 2014-11-26 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable fraction) | 1 mg/m ³ | 2008-01-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA | 5 mg/m ³ | 2005-09-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Total) | 15 mg/m ³ | 1989-01-19 | |

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| | | | | | |
|-------------------------------|-----------|--------------------------------|----------------------------------|------------|--|
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable fraction) | 5 mg/m ³ | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust) | 15 mg/m ³ | 2011-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction) | 5 mg/m ³ | 2011-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Total dust) | 15 mg/m ³ | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable dust fraction) | 5 mg/m ³ | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (welding fumes) | 5 mg/m ³ | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (pyro powders) | 5 mg/m ³ | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable fraction) | 1 mg/m ³ | 2013-03-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Fumes) | 5 mg/m ³ | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (Welding fumes) | 5 mg/m ³ | 2017-10-02 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (Pyro powders) | 5 mg/m ³ | 2017-10-02 | |
| acetone | 67-64-1 | TWA | 250 ppm | 2016-03-01 | |
| acetone | 67-64-1 | STEL | 500 ppm | 2016-03-01 | |
| acetone | 67-64-1 | TWA | 250 ppm 590 mg/m ³ | 2013-10-08 | |

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| | | | | | |
|---------|---------|------|--------------------------------------|------------|--|
| acetone | 67-64-1 | TWA | 1 000 ppm 2 400 mg/m ³ | 1997-08-04 | |
| acetone | 67-64-1 | TWA | 750 ppm 1 800 mg/m ³ | 1989-01-19 | |
| acetone | 67-64-1 | STEL | 1 000 ppm 2 400 mg/m ³ | 1989-01-19 | |
| acetone | 67-64-1 | STEL | 750 ppm 1 780 mg/m ³ | 2014-11-26 | |
| acetone | 67-64-1 | C | 3 000 ppm | 2014-11-26 | |
| acetone | 67-64-1 | PEL | 500 ppm 1 200 mg/m ³ | 2014-11-26 | |

8.2 Exposure controls

Personal protective equipment

Eye protection : Goggles

: Wear face-shield and protective suit for abnormal processing problems.

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.

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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.

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.

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SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

| | |
|--|--------------------------|
| Appearance | : liquid |
| Colour | : No data available |
| Odour | : characteristic |
| pH | : No data available |
| Freezing point | : No data available |
| Boiling point/boiling range | : 171 °C |
| Flash point | : 28 °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 | : 1,26 g/cm ³ |
| Water solubility | : No data available |
| Miscibility with water | : immiscible |
| Solubility in other solvents | : No data available |
| Partition coefficient: n-octanol/water | : No data available |
| Ignition temperature | : No data available |
| Thermal decomposition | : No data available |
| Viscosity, dynamic | : No data available |

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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 materialsMaterials to avoid : Acids
Bases
Oxidizing agents**10.6 Hazardous decomposition products**

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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

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STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product

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

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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**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.
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.

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SECTION 14: Transport information**14.1 UN number**

ADR : 1263
TDG : 1263
CFR : 1263
IMDG : 1263
IATA : 1263

14.2 Proper shipping name

ADR : PAINT
TDG : PAINT
CFR : PAINT
IMDG : PAINT
IATA : PAINT

14.3 Transport hazard class

ADR : 3
TDG : 3
CFR : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADR
Packaging group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

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Tunnel restriction code : (D/E)

TDG

Packaging group : III

Labels : 3

CFR

Packaging group : III

Labels : 3

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

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SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

15.2 Chemical safety assessment

No data available

SECTION 16: Other information**Full text of H-Statements**

H225 : Highly flammable liquid and vapour.
H226 : Flammable liquid and vapour.
H227 : Combustible liquid.
H228 : Flammable solid.
H302 : Harmful if swallowed.
H302 + H312 + H332 : Harmful if swallowed, in contact with skin or if inhaled.
H312 : Harmful in contact with skin.
H315 : Causes skin irritation.
H319 : Causes serious eye irritation.
H332 : Harmful if inhaled.

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.

SAFETY DATA SHEET



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