

1. IDENTIFIKATION OF THE SUBSTANCE/PREPARATION AND COMPANY

COMMERCIAL PRODUCT NAME: **LUISO W44**

Product use: Isolation of metal for the heat treatment

Manufacturer/Supplier:

DAM Härtetechnik GmbH
Am Bubenpfad 2
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Germany

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Informing department: Laboratory

Emergency information: :+49-(0)621-454-9-666

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS08 health hazard

Repr. 1B H360 May damage fertility or the unborn child.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

T; Repr. 1B

R60-61: May impair fertility. May cause harm to the unborn child.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms GHS08

Signal word Danger

Hazard-determining components of labelling:

boric acid

Hazard statements

H360 May damage fertility or the unborn child.

Precautionary statements

P281 Use personal protective equipment as required.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P404 Store in a closed container.

P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.

Additional information:

Reproductive/Developmental: Animal ingestion studies in several species, at high doses, indicate that boric acid and sodium tetraborate cause reproductive and developmental effects.

A human study of occupational exposure to borate dust showed no adverse effect on reproduction.

Ingestion: Products containing boric acid are not intended for ingestion.

Boric acid has low acute toxicity. Small amounts (e.g. a teaspoonful) swallowed accidentally are not likely to cause effects; swallowing amounts larger than that may cause gastrointestinal symptoms.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description:

Mixture of the substances listed below with harmless additions.

Dangerous components :

CAS: 10043-35-3 boric acid 30-55%

EINECS: 233-139-2 T R60-61

GHS08 Repr. 1B, H360FD

SVHC

10043-35-3 boric acid

Additional information:

For the wording of the listed risk phrases refer to section 16.

4. FIRST AID MEASURES

Description of first aid measures

After inhalation: Supply fresh air; consult doctor in case of symptoms.

After skin contact: The product is not skin irritating.

After eye contact: Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing: Do not induce vomiting; instantly call for medical help.

Information for doctor:

Most important symptoms and effects, both acute and delayed:

No further relevant information available.

Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

5. FIRE-FIGHTING MEASURE

Extinguishing media

Suitable extinguishing agents: Product is non-inflammable.

Special hazards arising from the substance or mixture

No further relevant information available.

Advice for firefighters

Protective equipment: No special measures required.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Environmental precautions:

Prevent material from reaching sewage system, holes and cellars. Do not allow to enter the ground/soil.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation.

Reference to other sections:

No dangerous materials are released.

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

7. HANDLING AND STORAGE

Handling

Precautions for safe handling:

No special measures required. Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about protection against explosions and fires:

The product is not flammable

<p><u>Conditions for safe storage, including any incompatibilities:</u> Storage <u>Requirements to be met by storerooms and containers:</u> Store in cool location. <u>Information about storage in one common storage facility:</u> Not required. <u>Further information about storage conditions:</u> Protect from frost. Specific end use(s) No further relevant information available.</p>													
<p>8. EXPOSURE CONTROLS/PERSONAL PROTECTION <u>Additional information about design of technical systems:</u> No further data; see item 7. Control parameters <u>Components with critical values that require monitoring at the workplace:</u> The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. <table border="1"> <thead> <tr> <th>CAS No.</th> <th>Designation of material</th> <th>%</th> <th>Type</th> <th>Value</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td colspan="6">No further data; see item 2.</td> </tr> </tbody> </table> <u>Additional information:</u> The lists that were valid during the compilation were used as basis. Exposure controls Personal protective equipment General protective and hygienic measures: The usual precautionary measures should be adhered to in handling the chemicals. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Do not eat, drink or smoke while working. <u>Breathing equipment:</u> Not required. <u>Protection of hands:</u> Impervious gloves The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation <u>Material of gloves:</u> Rubber gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. Butyl rubber, BR <u>Penetration time of glove material:</u> The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. <u>For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:</u> Butyl rubber, BR <u>Eye protection:</u> Safety glasses recommended during refilling. <u>Body protection:</u> Protective work clothing.</p>		CAS No.	Designation of material	%	Type	Value	Unit	No further data; see item 2.					
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<p>9. PHYSICAL AND CHEMICAL PROPERTIES Information on basic physical and chemical properties General Information <u>Appearance:</u> <table border="1"> <tbody> <tr> <td>Form:</td> <td>paste</td> </tr> <tr> <td>Color:</td> <td>green</td> </tr> <tr> <td>Smell:</td> <td>little</td> </tr> </tbody> </table></p>		Form:	paste	Color:	green	Smell:	little						
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Odour threshold:	Not determined.
pH-value at 20°C:	6-7
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	100°C
Flash point:	Not applicable
Ignition temperature:	
Decomposition temperature:	Not determined.
Self-inflammability:	Product is not selfigniting.
Danger of explosion:	Product is not explosive.
Critical values for explosion:	
Lower:	Not determined.
Upper:	Not determined.
Steam pressure at 20°C:	23 hPa
Density at 20°C	1.2 g/cm ³ (DIN 53217)
Solubility in / Miscibility with	
Water:	Fully miscible
Viscosity:	
dynamic at 20°C:	15000 mPas (Brookfield)
Solvent content:	
Organic solvents:	0 %
Water:	20-30 %
Solids content:	70-80 %
Other information:	Values are average.

10. STABILITY AND REAKTIVITY

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products:

At temperatures above 250°C, depolymerisation and the release of starting monomers can arise.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: none

LD / LC50 values that are relevant for classification :

10043-35-3 boric acid

Oral LD50 2660 mg/kg (rat)

Dermal LD50 >2000 mg/kg (rab)

Inhalative LC50/4 h 2.03 mg/l (rat)

Primary irritant effect:

On the skin: No irritant effect.

On the eye: Irritant effect.

Sensitization: No sensitizing effect known.

Additional toxicological information:

Human data: Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures to boric acid and sodium borate dust. Human epidemiological studies indicate no effect on fertility in occupational populations with chronic exposures to borate dust and indicate no effect to a general population with high exposures to borates in the environment.

Reproductive/developmental toxicity: No data is available on the product itself. However, animal feeding studies with boric acid and sodium tetraborate in rat, mouse and dog, at high doses, have demonstrated

effects on fertility and testes. Studies with the chemically related boric acid in rat, mouse and rabbit, at high doses, demonstrate developmental effects on the foetus including foetal weight loss and minor skeletal variations. The lowest NOAEL is 9.6 mg B/kg in rats, based on developmental effects. The doses administered were many times in excess of those which humans would normally be exposed to
Carcinogenicity/Mutagenicity: No evidence of carcinogenicity in mice. Not mutagenic (based on boric acid).

12. ECOLOGICAL INFORMATION

Toxicity

Acquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Behaviour in environmental systems:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow product to reach ground water, water bodies or sewage system. At present there are no ecotoxicological assessments.

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Waste disposal key number:

08 00 00 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

08 01 00 wastes from MFSU and removal of paint and varnish.

08 01 12 waste paint and varnish other than those mentioned in 08 01 11.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

ADR/RID-GGVS/E Class: -

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: -

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: -

UN "Model Regulation": -

Special precautions for user: Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations:

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

These data are based on our present knowledge. However, they shall not constitute a guarantee for any

specific product features and shall not establish a legally valid contractual relationship.

Department issuing data specification sheet: Laboratory department.

Contact: Herr Berger

* Data compared to the previous version altered.