

Material Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)

Product Name: LUISO W44
Revised edition: 13.01.2026
Version: 1.0/eng
Printed: 13.01.2026

DAM Härtetechnik

www.dam-gmbh.de

System supplier for heat treatment

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

1.1 Product identifier

LUISO W44

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Isolation of metal for the heat treatment

1.3 Details of the supplier of the safety data sheet:

Company:	DAM Härtetechnik GmbH
Address:	Am Bubenpfad 2, 67065 Ludwigshafen, Germany
Tel.:	+49-(0)621-454 9 666
Fax:	+49-(0)621-454 9 667
Email:	info@dam-gmbh.de

1.4 emergency number: +49-(0)621-454 9 666

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008

Repr. 1B H360FD May damage fertility. May damage the unborn child. Classification according to Directive 67/548/EEC or Directive 1999/45/ECT; 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.

2.2 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

H360FD May damage fertility. May damage 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.

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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.

2.3 Other hazards

Results of PBT and vPvB
assessment PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/ information on ingredients

3.1 Stuffs

Chemical Characterization: Mixtures

3.2 Mixtures

Description:

Mixture of the substances listed below with harmless additions. Dangerous components:

CAS: 10043-35-3

EINECS: 233-139-2

boric acid 50% T Repr. Cat. 2 R60-61

Repr. 1B,

H360FD S V H C

10043-35-3 boric acid

Additional information:

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

SECTION 4: First aid measures

4.1 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.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents Product is non-inflammable.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 **Personal precautions**, protective equipment and emergency procedures Wear protective clothing.

6.2 Environmental precautions:

Prevent material from reaching sewage system, holes and cellars.

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Do not allow to enter the ground/soil.

6.3 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.

6.4 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.

SECTION 7: Handling and storage

7.1 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: Keep breathing equipment ready.

The product is not flammable

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers: Store in cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Protect from frost.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

8.1 Control parameters

Components with critical values that require monitoring at the workplace: No further data; see item 2.

Additional information:

The lists that were valid during the compilation were used as

basis. 8.2 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. Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Do not eat, drink or smoke while working.

Breathing equipment: Not required.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the he preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Material of 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

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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.

Recommended thickness of the material: ≈ 0.5

mm Butyl rubber, BR

Penetration time of glove material

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.

For the permanent contact in work areas without heightened risk of injury e.g. Laboratory) gloves made of the following material are suitable:

Butyl rubber, BR

Eye protection: Safety glasses recommended during refilling. Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form: Pasty

Colour: green

Smell: Mild

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

Inflammability (solid, gaseous) 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 1.3 g/cm³ (DIN

53217) Solubility in / Miscibility with

Water: Fully

miscible Viscosity:

dynamic at 20 °C: 5000-15000 mPas

(Brookfield) Solvent content:

Organic solvents: <2

% Water: 15-35 %

Solids content: 65-85 %

9.2 Other information: Values are average.

SECTION 10: Stability and reactivity

10.1 Reactivity

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known

10.4 Conditions to avoid No further relevant information available.

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10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:

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

SECTION 11: Toxicological information

11.1 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: No 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).

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction) Repr. 1B

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 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.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

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

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Wastedisposalkeynumber:

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.

Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information

14.1 UN-Number

ADR, ADN, IMDG, IATA Void

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG,
IATA Class Void

14.4 Packing group

ADR, IMDG, IATA Void

14.5 Environmental hazards:

Marine pollutant: No

14.6 Special precautions for user Not applicable.

14.7 Transport in bulk according to

Annex II of MARPOL73/78 and the IBC

Code Not applicable.

UN "Model Regulation":

SECTION 15: Regulatory information

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

National regulations

Technical instructions (air): *Classification I: 0.05 % organic*

Water hazard class 1 (Self-assessment): slightly hazardous for water. Other regulations, limitations and prohibitive regulations

Substances of very high concern(SVHC)according to REACH,

Article 57 10043-35-3 boric acid

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.