

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Product form : Mixture
 Trade name : BRUGGOLITE® E01
 Product code : 000102

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

Main use category : Industrial use, Professional use
 Use of the substance/mixture : Intermediates
 Laboratory chemicals
 Lubricants and additives
 Vulcaniser
 Polymerization
 Process regulator or aid
 Pharmaceutical industry
 Textile industries
 Bleaching agents

Title	Life cycle stage	Use descriptors
Use descriptors	Industrial, Professional	SU0, SU12, SU20, PC0, PC9a, PC20, PC21, PC34, PC35, PROC1, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC13, ERC1, ERC2, ERC4, ERC6d, ERC8a

Full text of use descriptors: see section 16

1.2.2. Uses advised against

Title	Use descriptors	Reason
Spraying	SU22, PROC7, PROC11	Risk assessments, Not available

Full text of use descriptors: see section 16

1.3. Details of the supplier of the safety data sheet
Supplier

Brüggemann Chemical, L. Brüggemann KG
 Salzstraße 131
 74076 Heilbronn - Deutschland
 T +49 7131 1575-0 - F +49 7131 1575-25-111
info@brueggemann.com

Safety Data Sheet

info@ubsplus.de

1.4. Emergency telephone number

Emergency number : +49 761 19240
 (VIZ Freiburg, 24 h, German & English)

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Muta. 2 H341
 Repr. 2 H361d

Full text of hazard classes and H-statements : see section 16

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) : Warning

Hazardous ingredients	: sodium hydroxymethanesulphinate
Hazard statements (CLP)	: H341 - Suspected of causing genetic defects H361d - Suspected of damaging the unborn child
Precautionary statements (CLP)	: P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P281 - Use personal protective equipment as required P308+P313 - IF exposed or concerned: Get medical advice/attention P405 - Store locked up P501 - Dispose of contents/container to an approved waste disposal plant
EUH-statements	: EUH032 - Contact with acids liberates very toxic gas

2.3. Other hazards

Other hazards not contributing to the classification : Contact with acids liberates very toxic gas.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium hydroxymethanesulphinate (Main constituent)	(CAS No) 149-44-0 (EC no) 205-739-4 (REACH-no) 01-2119487952-23	98 - 99.5	Muta. 2, H341 Repr. 2, H361d
sodium carbonate	(CAS No) 497-19-8 (EC no) 207-838-8 (EC index no) 011-005-00-2 (REACH-no) 01-2119485498-19	<5	Eye Irrit. 2, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Move the affected person away from the contaminated area.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Immediately remove contaminated clothing or footwear. Rinse and then wash skin thoroughly with water and soap. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Wash with plenty of water (during 20 minutes minimum) with eyes wide open after taking off soft contact lenses and immediately take medical advice.
First-aid measures after ingestion	: Rinse mouth with water, do not induce vomiting, call a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after ingestion : Ingestion may cause nausea, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: water, carbon dioxide (CO ₂), powder and foam. If there is a fire close by, use suitable extinguishing agents.
Unsuitable extinguishing media	: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Not flammable.
Explosion hazard	: Product is not explosive.
Hazardous decomposition products in case of fire	: Sulphur dioxide. Carbon monoxide. Carbon dioxide.

5.3. Advice for firefighters

- Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses. Do not contaminate ground and surface water.
- Protection during firefighting : Extra personal protection: complete protective clothing including self-contained breathing apparatus.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate the danger area. Keep public away from danger area. Mark the danger area. Avoid dust formation.

6.1.1. For non-emergency personnel

- Protective equipment : Wear personal protective equipment.
- Measures in case of dust release : Do not breathe dust.

6.1.2. For emergency responders

- Protective equipment : Wear personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Dike and contain spill. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).
- Methods for cleaning up : Wash the floor with plenty of water.

6.4. Reference to other sections

Precautionary measures fire. SECTION 5. Personal protective equipment. SECTION 8. Disposal considerations. SECTION 13.

SECTION 7: Handling and storage
7.1. Precautions for safe handling

- Precautions for safe handling : Read label before use. Avoid dust formation.
- Hygiene measures : Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with soap and water before leaving work. Apply emollient cream.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed in a cool place.
- Incompatible products : Do not store near oxidizing agents or acidic material.
- Storage temperature : ≤ 40 °C
- Heat and ignition sources : Store away from direct sunlight or other heat sources.
- Prohibitions on mixed storage : SECTION 15.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure limit values for the other components

formaldehyde (50-00-0)			
United Kingdom	WEL TWA (mg/m ³)	2.5 mg/m ³	Hazardous decomposition products
United Kingdom	WEL TWA (ppm)	2 ppm	Hazardous decomposition products
United Kingdom	WEL STEL (mg/m ³)	2.5 mg/m ³	Hazardous decomposition products
United Kingdom	WEL STEL (ppm)	2 ppm	Hazardous decomposition products

sodium hydroxymethanesulphinate (149-44-0)

DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	40 mg/kg bodyweight/day
Acute - systemic effects, inhalation	140 mg/m ³
Acute - local effects, dermal	0.225 mg/cm ²
Acute - local effects, inhalation	Not required
Long-term - systemic effects, dermal	6 mg/kg bodyweight/day
Long-term - local effects, dermal	Not required

sodium hydroxymethanesulphinate (149-44-0)	
Long-term - systemic effects, inhalation	21 mg/m ³
Long-term - local effects, inhalation	Not required
PNEC (Water)	
PNEC aqua (freshwater)	56 µg/L
PNEC aqua (marine water)	6 µg/L
PNEC aqua (intermittent, freshwater)	0.056 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.046 mg/kg dwt
PNEC sediment (marine water)	0.005 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.011 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	0.001 mg/l

8.2. Exposure controls

Personal protective equipment	: Wear proper protective equipment. Gloves. Protective goggles. Insufficient ventilation: wear respiratory protection.
Hand protection	: Recommended materials. Nitrile rubber (0,11 mm). Penetration time of glove material > 480 min (EN 374). Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer
Eye protection	: Sealed safety goggles. (EN 166)
Respiratory protection	: In case of dust formation use respirator with filter: P2 or P3. (Half-mask or Full face piece respirator). Additional hazards when processed : Formaldehyde


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

Physical state	: Solid
Appearance	: Powder.
Colour	: white
Odour	: characteristic
Odour threshold	: No data available
pH	: 10 (DIN 53785)
pH solution	: 100 g/l
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Thermal decomposition
Freezing point	: Not applicable
Boiling point	: Thermal decomposition
Flash point	: Not specifically applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: > 165 °C
Flammability (solid, gas)	: Not flammable, Test method EU A.10
Vapour pressure	: 2.68 mPa (20 °C, EU A.4)
Relative vapour density at 20 °C	: No data available
Relative density	: 1.74 (OECD 109 method)
Density	: 1000 kg/m ³ (Bulk density, DIN 53466)
Solubility	: Material highly soluble in water. Water: 1088 g/l
Log Pow	: ca. 3.4 (Estimated on the basis of the constituents)
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: None.
Oxidising properties	: None.

Explosive limits : No data available

9.2. Other information

Other properties : Corrosive to metals Not classified. (UN 37.4 C.1).

SECTION 10: Stability and reactivity
10.1. Reactivity

Corrosive to metals Not classified. (UN 37.4 C.1). Contact with acids liberates very toxic gas.

10.2. Chemical stability

The product is stable at normal handling and storage conditions. Stabilizer : sodium carbonate.

10.3. Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids.

10.4. Conditions to avoid

Aqueous solution oxidizes on exposure to air. Recommended storage temperature. SECTION 7.

10.5. Incompatible materials

Oxidizing agent. Strong acids.

10.6. Hazardous decomposition products

On contact with acid releases: Hydrogen sulfide. Sulphur dioxide. Formaldehyde. Toxic gases.

SECTION 11: Toxicological information
11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

sodium hydroxymethanesulphinate (149-44-0)	
LD50 oral rat	> 5000 mg/kg (OECD 423 method)
LD50 dermal rat	> 2000 mg/kg (OECD 402 method)
sodium carbonate (497-19-8)	
LD50 oral rat	> 2800 mg/kg
LD50 dermal rat	> 2000 mg/kg (16 CFR 1500.40)
LC50 inhalation rat (mg/l)	2300 mg/m ³ /2h (OECD SIDS)

 Skin corrosion/irritation : sodium hydroxymethanesulphinate: Not irritating. rat. (OECD 402 method). sodium carbonate: Irritating. rat. (OECD 404 method)
Based on available data, the classification criteria are not met
pH: 10 (DIN 53785)

 Serious eye damage/irritation : sodium hydroxymethanesulphinate: Slightly irritant but not relevant for classification. (OECD 405 method). sodium carbonate: Irritating. rat. (16 CFR 1500.42)
Based on available data, the classification criteria are not met
pH: 10 (DIN 53785)

 Respiratory or skin sensitisation : sodium hydroxymethanesulphinate: No sensitizing reaction was observed for guinea pigs. (OECD 406 method). sodium carbonate: No data available
Based on available data, the classification criteria are not met

 Germ cell mutagenicity : Suspected of causing genetic defects.
sodium hydroxymethanesulphinate:
Mutagenetic
(OECD 471 method)
Negative
(OECD 474 method)
Positive
(OECD 476 method)
Positive
sodium carbonate:
Negative

 Carcinogenicity : Not classified
No data available

Reproductive toxicity	: Sodium hydroxy-methanesulphinate: Fertility: NOAEL = 1,000 mg/kgbw/d, rat, OECD 422; NOAEL = 1,000 mg/kgbw/d, rat, OECD 414 Developmental toxicity, Teratogenicity: NOAEL = 1,000 mg/kgbw/d, rat, OECD 422 Fetotoxic effects detected; no NOAEL can be defined for foetuses. (OECD 414) Developmental toxicity, Maternal toxicity: NOAEL = 300 mg/kgbw/d (rat, OECD 422); NOAEL = 300 mg/kgbw/d (rat, OECD 414) Sodium carbonate: Developmental toxicity, Maternal toxicity: NOAEL ≥ 179 mg/kgbw/d, rabbit; no teratogenic effects Conclusion: Reproductive toxicity, Category 2, H361d
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met

sodium hydroxymethanesulphinate (149-44-0)	
NOAEL, subacute, oral, rat, parental	= 300 mg/kg bodyweight/day (30 days, (OECD 422 method))
NOAEL, subacute, oral, rat, developmental	= 1000 mg/kg bodyweight/day (30 days, (OECD 422 method))
NOEL, subchronic, oral, rat	= 100 mg/kg bodyweight/day (90 days, (OECD 408 method))
NOAEL, subchronic, oral, rat	= 600 mg/kg bodyweight/day (90 days, (OECD 408 method))

sodium carbonate (497-19-8)	
LOAEL, Inhalation, rat	= mg/m ³ (days)

Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
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SECTION 12: Ecological information

12.1. Toxicity

sodium hydroxymethanesulphinate (149-44-0)	
LC50, leuciscus idus	> 10000 mg/l (96 Hours, DIN 38412, Freshwater)
EC50, daphnia magna	> 100 mg/l (48 Hours, (OECD 202 method), Freshwater)
ErC50, desmodemus subspicatus	= 370 mg/l (72 Hours, (OECD 201 method), Freshwater)
EbC50, desmodemus subspicatus	= 220 mg/l (72 Hours, (OECD 201 method), Freshwater)
NOEC, Brachydanio rerio (zebra-fish)	= 13,5 mg/l (35 days, (OECD 210 method), Freshwater)
LOEC, Brachydanio rerio (zebra-fish)	> 13,5 mg/l (35 days, (OECD 210 method), Freshwater)
NOEC, daphnia magna	= 5,6 mg/l (21 days, (OECD 211 method), Freshwater)
EC10, daphnia magna	= 8 mg/l (21 days, (OECD 211 method), Freshwater)
EC, daphnia magna	= 16 mg/l (21 days, (OECD 211 method), Freshwater)

sodium carbonate (497-19-8)	
LC50, lepomis macrochirus	> 300 mg/l (96 Hours, Freshwater)
EC50, ceriodaphnia dubia	> 200 mg/l (48 Hours, Freshwater)

12.2. Persistence and degradability

BRUGGOLITE® E01	
Persistence and degradability	Organic materials : Readily biodegradable.
Biochemical oxygen demand (BOD)	≈ 0.014 g O ₂ /g substance (BSB5)
Chemical oxygen demand (COD)	≈ 0.49 g O ₂ /g substance DIN 38412, part 43

sodium hydroxymethanesulphinate (149-44-0)	
Persistence and degradability	Readily biodegradable.
Biodegradation	77 % 28 d, OECD 302 B

sodium carbonate (497-19-8)	
Persistence and degradability	Not specifically applicable.
Biodegradation	Not applicable

12.3. Bioaccumulative potential

BRUGGOLITE® E01	
Log Pow	ca. 3.4 (Estimated on the basis of the constituents)
Bioaccumulative potential	Low bioaccumulation potential.

sodium hydroxymethanesulphinate (149-44-0)	
Bioconcentration factor (BCF REACH)	3.16 l/kg (EPIWIN BCFBAF V. 3.00)

sodium hydroxymethanesulphinate (149-44-0)	
Log Pow	< -3
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

BRUGGOLITE® E01	
Ecology - soil	No data available. Not required.

sodium carbonate (497-19-8)	
Log Koc	< 1.5 (20 °C)

12.5. Results of PBT and vPvB assessment

BRUGGOLITE® E01	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations
13.1. Waste treatment methods

Regional legislation (waste)	: This material and its container must be disposed of in a safe way, and as per local legislation.
Sewage disposal recommendations	: Do not allow to enter drains or water courses.
Waste disposal recommendations	: Do not dispose of with domestic waste.
Additional information	: Handle uncleaned empty containers as full ones.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: Not regulated
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not regulated
UN-No. (RID)	: Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
Proper Shipping Name (ADN)	: Not regulated
Proper Shipping Name (RID)	: Not regulated

14.3. Transport hazard class(es)
ADR

Transport hazard class(es) (ADR) : Not regulated

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

ADN

Transport hazard class(es) (ADN) : Not regulated

RID

Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not regulated

Packing group (RID) : Not regulated

14.5. Environmental hazards

 Dangerous for the environment : No
 Marine pollutant : No
 Other information : No supplementary information available

14.6. Special precautions for user
- Overland transport

Not regulated

- Transport by sea

Not regulated

- Air transport

Not regulated

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Other information, restriction and prohibition regulations : Export and import of dangerous chemicals: Not subject to Regulation (EC) No 649/2012. Detergents Regulation: Not subject to Regulation (EC) No 648/2004. Ozone layer depleting substances: Not subject to Regulation (EC) No 1005/2009. Persistent organic pollutants (POPs): Not subject to Regulation (EC) No 850/2004. Control of major-accident hazards (COMAH, Seveso III): Not subject to Directive 2012/18/EC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out :

sodium hydroxymethanesulfinate

sodium carbonate

SECTION 16: Other information

Indication of changes:

9.1	Melting point	Modified	
15	Regulatory information	Modified	

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
H319	Causes serious eye irritation
H341	Suspected of causing genetic defects
H361d	Suspected of damaging the unborn child
EUH032	Contact with acids liberates very toxic gas
ERC1	Manufacture of substances

ERC2	Formulation of preparations
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC6d	Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
ERC8a	Wide dispersive indoor use of processing aids in open systems
PC0	Other (use UCN codes: see last row)
PC20	Products such as ph-regulators, flocculants, precipitants, neutralization agents
PC21	Laboratory chemicals
PC34	Textile dyes, finishing and impregnating products; including bleaches and other processing aids
PC35	Washing and cleaning products (including solvent based products)
PC9a	Coatings and paints, thinners, paint removers
PROC1	Use in closed process, no likelihood of exposure
PROC11	Non industrial spraying
PROC13	Treatment of articles by dipping and pouring
PROC3	Use in closed batch process (synthesis or formulation)
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC7	Industrial spraying
PROC8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
SU0	Other
SU12	Manufacture of plastics products, including compounding and conversion
SU20	Health services
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Muta. 2	H341	
Repr. 2	H361d	

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product