Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 21.11.2025 Revision date: 21.11.2025 Version/Replaced version: 08/07

The Safety Data Sheet is usable for:

REF	Name
BA E-2500	GABA ELISA
BA E-2500R	GABA ELISA

Single components with dangerous ingredients:

REF	Name	
BA E-0040	Enzyme Conjugate	CONJUGATE
BA E-0080	Stop Solution	STOP-SOLN
BA E-2413	Assay Buffer	ASSAY-BUFF
BA E-2446	D-Reagent	D-REAGENT
BA E-2560	Diluent	DILUENT
BA E-2787	NaOH	NAOH

Not listed single components contain no hazardous substances in concentrations to be declared, a labelling is not required.

Enzyme Conjugate BA E-0040

Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 21.06.2024 Revision date: - Version/Replaced version: 1.0/-

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

1.1. Product identifier

Product form : Mixture

Product name : Enzyme Conjugate BA E-0040

UFI : -

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory reagent, Immunoassays
Use by professionals.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier/Manufacturer
LDN Labor Diagnostika Nord GmbH & Co. KG
Am Eichenhain 1
48531 Nordhorn, Germany
T +49 (0)5921 81970 - F +49 (0)5921 8197 201
support@ldn.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency telephone number
Germany	LDN Labor Diagnostika Nord GmbH & Co. KG	Am Eichenhain 1 48531 Nordhorn, Germany	+49 (0) 5921-81970 (Mo-Fr 8:00-16:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin sensitisation, Category 1 H317

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Hazardous ingredients : 2-methyl-2H-isothiazol-3-one

Hazard statements (CLP) : H317 - May cause an allergic skin reaction.

Precautionary statements (CLP) : P280 - Wear protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P501 - Dispose of contents/container to an authorised waste collection point.

Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Hazardous ingredients : 2-methyl-2H-isothiazol-3-one

Hazard statements (CLP) : H317 - May cause an allergic skin reaction.

Precautionary statements (CLP) : P280 - Wear protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P501 - Dispose of contents/container to an authorised waste collection point.

2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-methyl-2H-isothiazol-3-one	(CAS No) 2682-20-4 (EC No) 220-239-6 (EC index No) 613-326-00-9 (REACH No) 01-2120764690-50-xxxx	0.01	Acute Tox. 2 (Inhalation), H330 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
2-methyl-2H-isothiazol-3-one	(CAS No) 2682-20-4 (EC No) 220-239-6 (EC index No) 613-326-00-9 (REACH No) 01-2120764690-50-xxxx	(C ≥ 0.0015) Skin Sens. 1A, H317

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Make the affected person rest and keep at warm. If breathing stops, give artificial respiration.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink water as a precaution.

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

Symptoms/effects after skin contact : May cause an allergic skin reaction.

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 : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide. Sulphur oxides. Nitrogen oxides.

5.3. Advice for firefighters

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Provide adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

6.4. Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container tightly closed. Store in a dry, cool, well-ventilated place. Protect from direct sunlight.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Laboratory reagent, Immunoassays.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-methyl-2H-isothiazol-3-one (2682-20-4)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	0.021 mg/m³
Acute - local effects, inhalation	0.043 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.027 mg/kg bodyweight/day
Acute - systemic effects, oral	0.053 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.021 mg/m³
Acute - local effects, inhalation	0.043 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	3.39 µg/l
PNEC aqua (marine water)	3.39 µg/l
PNEC aqua (intermittent, freshwater)	3.39 µg/l
PNEC aqua (intermittent, marine water)	3.39 µg/l
PNEC (Soil)	
PNEC soil	0.047 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	0.23 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations.

Hand protection:

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm, Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Wear safety glasses (EN 166).

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type A.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	No data available
Odour	:	No data available
Melting point/freezing point	:	No data available
Boiling point or initial boiling point and boiling range	:	No data available
Flammability	:	No data available
Lower and upper explosion limit	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	No data available
Kinematic viscosity	:	No data available
Solubility	:	Completely soluble in Water
Partition coefficient n-octanol/water (log value)	:	Not applicable
Vapour pressure	:	No data available
Density and/or relative density	:	No data available
Relative vapour density	:	No data available
Particle size	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties	:	No explosive properties.
Oxidising properties	:	No oxidising properties.

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

High temperatures.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

10.6. Hazardous decomposition products

No hazardous decomposition products known. In case of fire: Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Sulphur oxides. Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

2-methyl-2H-isothiazol-3-one (2682-20-4)	
LD50 oral rat	120 mg/kg
LD50 dermal rat	242 mg/kg
LC50 inhalation rat	0.1 mg/l/4h

Skin corrosion/irritation : Not classified
Based on available data, the classification criteria are not met

Serious eye damage/irritation : Not classified
Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified
Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met

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

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

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disruption for human health : The mixture has no endocrine disrupting properties.

11.2.2. Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

2-methyl-2H-isothiazol-3-one (2682-20-4)	
LC50 fish	4.77 mg/l 96 h, Oncorhynchus mykiss
EC50 daphnia	0.934 mg/l 48 h, Daphnia magna
EC50 algae	0.22 mg/l 120 h, Raphidocelis subcapitata
EC50 micro-organisms	41 mg/l 3 h, activated sludge
NOEC fish	4.93 mg/l 98 d, Oncorhynchus mykiss
NOEC daphnia	0.044 mg/l 21 d, Daphnia magna
NOEC algae	0.05 mg/l 120 h, Raphidocelis subcapitata

12.2. Persistence and degradability

2-methyl-2H-isothiazol-3-one (2682-20-4)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	50 % 29 d (OECD 301 B)

12.3. Bioaccumulative potential

2-methyl-2H-isothiazol-3-one (2682-20-4)	
Partition coefficient n-octanol/water (Log Pow)	-0.486 (20 °C)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

Endocrine disruption for the environment : The mixture has no endocrine disrupting properties.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.

Waste treatment methods : Do not empty into drains. Dispose of this material and its container in a safe way.

Waste code : The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

ADR

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

IMDG

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

IATA

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

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

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 applicable

Transport by sea

Not applicable

Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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 substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Water hazard class (WGK)	:	WGK 1 - Slightly hazardous to water
WGK Remark	:	Classification according to AwSV, Annex 1
Storage class (LGK)	:	LGK 10 - 13
Employment restrictions	:	Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Data sources	:	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Changes compared to the previous version	:	-

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	“International Maritime Dangerous Goods Code” for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/ irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, Category 1A
H301	Toxic if swallowed
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction.

H318	Causes serious eye damage
H330	Fatal if inhaled
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

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.

Stop Solution BA E-0080

Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 14.07.2023 Revision date: - Version/Replaced version: 1.0/-

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

1.1. Product identifier

Product form : Mixture

Product name : Stop Solution BA E-0080

UFI : -

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory reagent, Immunoassays
Use by professionals.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier/Manufacturer
LDN Labor Diagnostika Nord GmbH & Co. KG
Am Eichenhain 1
48531 Nordhorn, Germany
T +49 (0)5921 81970 - F +49 (0)5921 8197 201
support@ldn.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency telephone number
Germany	LDN Labor Diagnostika Nord GmbH & Co. KG	Am Eichenhain 1 48531 Nordhorn, Germany	+49 (0) 5921-81970 (Mo-Fr 8:00-16:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, Category 1 H290

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

May be corrosive to metals.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05

Signal word (CLP) : Warning

Hazard statements (CLP) : H290 - May be corrosive to metals.

Precautionary statements (CLP) : P234 - Keep only in original packaging.
P390 - Absorb spillage to prevent material damage.
P406 - Store in a corrosion resistant container with a resistant inner liner.

Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) : -

Signal word (CLP) : -

Hazard statements (CLP) : -

Precautionary statements (CLP) : -

2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sulphuric acid	(CAS-No.) 7664-93-9 (EC-No.) 231-639-5 (EC Index-No.) 016-020-00-8	< 5	Met. Corr. 1, H290 Skin Corr. 1A, H314

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
Sulphuric acid	(CAS-No.) 7664-93-9 (EC-No.) 231-639-5 (EC Index-No.) 016-020-00-8	(5 ≤ C < 15) Eye Irrit. 2, H319 (5 ≤ C < 15) Skin Irrit. 2, H315 (C ≥ 15) Skin Corr. 1A, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink plenty of water as a precaution.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

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 : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ensure adequate air ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Absorb spillage to prevent material damage. Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

6.4. Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from direct sunlight. Keep out of frost.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

Incompatible materials : Metals.

7.3. Specific end use(s)

Laboratory reagent, Immunoassays

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sulphuric acid (7664-93-9)		
EU	Local name	Sulphuric acid (mist)
EU	IOEL TWA	0.05 mg/m³
Austria	Local name	Schwefelsäure
Austria	MAK (OEL TWA) (mg/m³)	0.1 E mg/m³
Austria	MAK (OEL STEL) (mg/m³)	0.2 E mg/m³
Belgium	Local name	Acide sulfurique (brume) # Zwavelzuur (nevel)
Belgium	OEL TWA (mg/m³)	0.2 mg/m³
Belgium	Remark	C
Germany	TRGS 900 Local name	Schwefelsäure
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	0.1 E mg/m³
Germany	TRGS 900 Remark	1(I), DFG, EU, Y
Luxembourg	Local name	Acide sulfurique (brume)
Luxembourg	OEL STEL (mg/m³)	0.05 mg/m³
Switzerland	Local name	Schwefelsäure
Switzerland	MAK (mg/m³)	0.1 e mg/m³
Switzerland	KZGW (mg/m³)	0.2 e mg/m³
Switzerland	Notation	$C1^{\#}_{A}$, SSc

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations.

Hand protection:

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm. Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Wear safety glasses (EN 166).

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type P2.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless
Odour	:	No data available
Melting point/freezing point	:	No data available
Boiling point or initial boiling point and boiling range	:	No data available
Flammability	:	No data available
Lower and upper explosion limit	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	< 1.0
Kinematic viscosity	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (log value)	:	Not applicable
Vapour pressure	:	No data available
Density and/or relative density	:	No data available
Relative vapour density	:	No data available
Particle size	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties	:	No explosive properties
Oxidising properties	:	No oxidising properties

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

May be corrosive to metals.

10.4. Conditions to avoid

High temperatures.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids. Metals.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. In case of fire: Toxic gases may be formed. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity : Not classified

Based on available data, the classification criteria are not met

Sulphuric acid (7664-93-9)	
LD50 oral rat	2140 mg/kg
LC50 inhalation rat	375 mg/m³

Skin corrosion/irritation : Not classified

Based on available data, the classification criteria are not met

Serious eye damage/irritation	:	Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	:	Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	:	Not classified Based on available data, the classification criteria are not met
Carcinogenicity	:	Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	:	Not classified Based on available data, the classification criteria are not met
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
Aspiration hazard	:	Not classified Based on available data, the classification criteria are not met

11.2. Information on other hazards

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Sulphuric acid (7664-93-9)	
LC50 fish	> 16 - < 28 mg/l 96 h, Lepomis macrochirus
EC50 crustacea	> 100 mg/l 48 h, Daphnia magna
EC50 algae	> 100 mg/l 72 h, Desmodesmus subspicatus
NOEC chronic fish	0.31 mg/l 213 d, Salvelinus fontinalis
NOEC chronic crustacea	0.15 mg/l, Tanytarsus dissimilis

12.2. Persistence and degradability

Not required for inorganic substances.

12.3. Bioaccumulative potential

Not required for inorganic substances.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.

Waste treatment methods : Do not empty into drains. Dispose of this material and its container in a safe way.

Waste code : The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

ADR

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

IMDG

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

IATA

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

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

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 applicable

Transport by sea

Not applicable

Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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 substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1 - Slightly hazardous to water
WGK Remark : Classification according to AwSV, Annex 1
Storage class (LGK) : LGK 10 - 13
Employment restrictions : Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Changes compared to the previous version : -

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	“International Maritime Dangerous Goods Code” for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

SDS EU (REACH Annex II)

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.

Assay Buffer BA E-2413

Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 14.07.2023 Revision date: - Version/Replaced version: 1.0/-

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

1.1. Product identifier

Product form : Mixture

Product name : Assay Buffer BA E-2413

UFI : -

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory reagent, Immunoassays
Use by professionals.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier/Manufacturer
LDN Labor Diagnostika Nord GmbH & Co. KG
Am Eichenhain 1
48531 Nordhorn, Germany
T +49 (0)5921 81970 - F +49 (0)5921 8197 201
support@ldn.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency telephone number
Germany	LDN Labor Diagnostika Nord GmbH & Co. KG	Am Eichenhain 1 48531 Nordhorn, Germany	+49 (0) 5921-81970 (Mo-Fr 8:00-16:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Reproductive toxicity, Category 1B	H360FD

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

May damage fertility. Suspected of damaging the unborn child. Causes skin irritation. Causes serious eye irritation.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS08

GHS07

Signal word (CLP) : Danger

Hazardous ingredients : Boric acid

Hazard statements (CLP) : H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H360FD - May damage fertility. Suspected of damaging the unborn child.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice and attention.
P501 - Dispose of contents/container to an authorised waste collection point.

Additional statements : Restricted to professional users

Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS08 GHS07

Signal word (CLP) : Danger

Hazardous ingredients : Boric acid

Hazard statements (CLP) : H360FD - May damage fertility. Suspected of damaging the unborn child.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P501 - Dispose of contents/container to an authorised waste collection point.

Additional statements : Restricted to professional users

2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Boric acid *(substance listed as REACH Candidate)*	(CAS-Nr.) 10043-35-3 (EG-Nr.) 233-139-2 (Index-Nr.) 005-007-00-2	< 3	Repr.1B, H360FD
Sodium hydroxide; caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6	< 1	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
Sodium hydroxide; caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6	(0.5 ≤ C < 2) Skin Irrit. 2, H315 (0.5 ≤ C < 2) Eye Irrit. 2, H319 (2 ≤ C < 5) Skin Corr. 1B, H314 (5 ≤ C ≤ 100) Skin Corr. 1A, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink plenty of water as a precaution.

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

Symptoms/effects : May damage fertility. Suspected of damaging the unborn child.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

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 : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic gases may be formed. Boron oxide.

5.3. Advice for firefighters

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Ensure adequate air ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

6.4. Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from direct sunlight. Keep out of frost. Store locked up.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Laboratory reagent, Immunoassays

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

boric acid (10043-35-3)		
Belgium	Local name	Borate, composés inorganiques de # Boraat, anorganische verbindingen van
Belgium	OEL TWA (mg/m³)	2 mg/m³
Belgium	OEL STEL (mg/m³)	6 mg/m³
Germany	TRGS 900 Local name	Borsäure und Natriumborate
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	0,5 E mg/m³
Germany	TRGS 900 Remark	2(I), AGS, Y, 10
Switzerland	Local name	Borsäure (calculated as B)
Switzerland	MAK (mg/m³)	1,8 e mg/m³
Switzerland	KZGW (mg/m³)	1,8 e mg/m³
Switzerland	Notation (CH)	$R1_B$, SS_B

sodium hydroxide; caustic soda (1310-73-2)		
Austria	Local name	Natriumhydroxid
Austria	MAK (OEL TWA) (mg/m³)	2 mg/m³ (E)

sodium hydroxide; caustic soda (1310-73-2)		
Austria	MAK (OEL STEL) (ppm)	4 mg/m³ (E)
Belgium	Local name	Sodium (hydroxyde de) # Natriumhydroxide
Belgium	OEL TWA (mg/m³)	2 mg/m³
Belgium	Remark	M
Switzerland	Local name	Soude caustique / Natriumhydroxid
Switzerland	MAK (mg/m³)	2 mg/m³ (i) / (e)
Switzerland	KZGW (mg/m³)	2 mg/m³ (i) / (e)
Switzerland	Notation (CH)	SS_C

boric acid (10043-35-3)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	8,3 mg/m³
Long-term - systemic effects, dermal	392 mg/kg bodyweight/day
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	4,15 mg/m³
Long-term - systemic effects, dermal	196 mg/kg bodyweight/day
Long-term - systemic effects, oral	0,98 mg/kg bodyweight/day
Acute - systemic effects, oral	0,98 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	2,9 mg/l
PNEC aqua (marine water)	2,9 mg/l
PNEC aqua (intermittent, freshwater)	13,7 mg/l
PNEC (Soil)	
PNEC soil	5,7 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

sodium hydroxide; caustic soda (1310-73-2)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	1 mg/m³
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	1 mg/m³

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations.

Hand protection:

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm. Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Wear safety glasses (EN 166).

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type P2.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	No data available
Odour	:	No data available
Melting point/freezing point	:	No data available
Boiling point or initial boiling point and boiling range	:	No data available
Flammability	:	No data available
Lower and upper explosion limit	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	8.9 - 9.1
Kinematic viscosity	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (log value)	:	Not applicable
Vapour pressure	:	No data available
Density and/or relative density	:	No data available
Relative vapour density	:	No data available
Particle size	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties	:	No explosive properties
Oxidising properties	:	No oxidising properties

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

High temperatures.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. In case of fire: Toxic gases may be formed. Boron oxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity : Not classified

Based on available data, the classification criteria are not met

boric acid (10043-35-3)	
LD50 oral rat	> 3765 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 2 mg/m³

Skin corrosion/irritation	:	Causes skin irritation.
Serious eye damage/irritation	:	Causes serious eye irritation.
Respiratory or skin sensitisation	:	Not classified Based on available data, the classification criteria are not met

Germ cell mutagenicity	:	Not classified Based on available data, the classification criteria are not met
Carcinogenicity	:	Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	:	May damage fertility. Suspected of damaging the unborn child.
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
Aspiration hazard	:	Not classified Based on available data, the classification criteria are not met

11.2. Information on other hazards

Potential adverse human health effects and symptoms	:	Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	:	Not classified
Chronic aquatic toxicity	:	Not classified

sodium hydroxide; caustic soda (1310-73-2)	
EC50 crustacea	40.4 mg/l 48 h, Ceriodaphnia sp.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

boric acid (10043-35-3)	
Log Pow	-1,09 (22 °C)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	:	Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods	:	Do not empty into drains. Dispose of this material and its container in a safe way.
Waste code	:	The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR)	:	Not applicable
UN-No. (IMDG)	:	Not applicable
UN-No. (IATA)	:	Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	Not applicable
Proper Shipping Name (IMDG)	:	Not applicable
Proper Shipping Name (IATA)	:	Not applicable

14.3. Transport hazard class(es)

ADR

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

IMDG

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

IATA

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

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

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 applicable

Transport by sea

Not applicable

Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains substances on the REACH candidate list: boric acid (10043-35-3)
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1 - Slightly hazardous to water
WGK Remark : Classification according to AwSV, Annex 1
Storage class (LGK) : LGK 6.1 - Non-inflammable toxic materials
Employment restrictions : Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed. Observe restrictions according Act on the Protection of Working Mothers (MuSchG).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Changes compared to the previous version : -

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	“International Maritime Dangerous Goods Code” for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)

LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H360FD	May damage fertility. Suspected of damaging the unborn child.

SDS EU (REACH Annex II)

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.

D-Reagent BA E-2446

Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 14.07.2023 Revision date: - Version/Replaced version: 1.0/-

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

1.1. Product identifier

Product form : Mixture

Product name : D-Reagent BA E-2446

UFI : -

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory reagent, Immunoassays
Use by professionals.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier/Manufacturer
LDN Labor Diagnostika Nord GmbH & Co. KG
Am Eichenhain 1
48531 Nordhorn, Germany
T +49 (0)5921 81970 - F +49 (0)5921 8197 201
support@ldn.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency telephone number
Germany	LDN Labor Diagnostika Nord GmbH & Co. KG	Am Eichenhain 1 48531 Nordhorn, Germany	+49 (0) 5921-81970 (Mo-Fr 8:00-16:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin sensitisation, Category 1A H317

Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation H335

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. May cause respiratory irritation.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Hazardous ingredients : Glutaraldehyde

Hazard statements (CLP) : H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.

Precautionary statements (CLP) : P261 - Avoid breathing mist/vapours/spray.
P280 - Wear protective gloves.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a POISON CENTER/doctor if you feel unwell.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P501 - Dispose of contents/container to an authorised waste collection point.

Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Hazardous ingredients : Glutaraldehyde

Hazard statements (CLP) : H317 - May cause an allergic skin reaction.

Precautionary statements (CLP) : P261 - Avoid breathing mist/vapours/spray.
P280 - Wear protective gloves.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P501 - Dispose of contents/container to an authorised waste collection point.

2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dimethyl sulfoxide	(CAS no) 67-68-5 (EC no) 200-664-3	> 95	Not classified
Glutaral, glutaraldehyde, 1,5-pentanedial *substance listed as REACH Candidate*	(CAS no) 111-30-8 (EC no) 203-856-5 (EC index no) 605-022-00-X	< 1	Acute Tox. 2 (Inhalation), H330 Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314 Skin Sens. 1A, H317 Resp. Sens. 1, H334 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 EUH071

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
Glutaral, glutaraldehyde, 1,5-pentanedial *substance listed as REACH Candidate*	(CAS no) 111-30-8 (EC no) 203-856-5 (EC index no) 605-022-00-X	(0.5 ≤ C < 5) STOT SE 3, H335

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell

First-aid measures after skin contact : Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink water as a precaution.

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

Symptoms/effects after inhalation : May cause respiratory irritation. May produce an allergic reaction.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

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 : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide. Sulphur oxides.

5.3. Advice for firefighters

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Provide adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

6.4. Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container tightly closed. Store in a dry, cool, well-ventilated place. Protect from direct sunlight. Store locked up.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Laboratory reagent, Immunoassays.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Dimethyl sulfoxide (67-68-5)		
Austria	Local name	Dimethylsulfoxid
Austria	MAK (OEL TWA) (mg/m³)	160 mg/m³
Austria	MAK (OEL TWA) (ppm)	50 ppm
Austria	Remark (AT)	H
Germany	TRGS 900 Local name	Dimethylsulfoxid (DMSO)
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	160 mg/m³
Germany	TRGS 900 Occupational Exposure Limit Value (ppm)	50 ppm
Germany	TRGS 900 Remark	2(I), DFG, Z, H
Switzerland	Local name	Diméthylsulfoxyde (DMSO) / Dimethylsulfoxid (DMSO)
Switzerland	MAK (mg/m³)	160 mg/m³
Switzerland	MAK (ppm)	50 ppm
Switzerland	KZGW (mg/m³)	320 mg/m³
Switzerland	KZGW (ppm)	100 ppm
Switzerland	Notation (CH)	H

Glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)		
Austria	Local name	Glutardialdehyd (Glutaral; 1,5-Pentandial)
Austria	MAK (OEL TWA) (mg/m³)	0.2 mg/m³
Austria	MAK (OEL TWA) (ppm)	0.05 ppm
Austria	MAK (OEL STEL) (mg/m³)	0.2 mg/m³
Austria	MAK (OEL STEL) (ppm)	0.05 ppm
Austria	Remark (AT)	Sah
Belgium	Local name	Aldéhyde glutarique # Glutaaraldehyde
Belgium	OEL TWA (mg/m³)	0.21 mg/m³
Belgium	OEL TWA (ppm)	0.05 ppm
Belgium	Remark (BE)	M
Germany	TRGS 900 Local name	Glutaral
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	0.2 mg/m³
Germany	TRGS 900 Occupational Exposure Limit Value (ppm)	0.05 ppm
Germany	TRGS 900 Remark	2(I), AGS, Sah, Y
Switzerland	Local name	Aldéhyde glutarique / Glutardialdehyd [Glutaral, 1,5-Pentandial, Glutaraldehyd]
Switzerland	MAK (mg/m³)	0.21 mg/m³
Switzerland	MAK (ppm)	0.05 ppm
Switzerland	KZGW (mg/m³)	0.42 mg/m³
Switzerland	KZGW (ppm	0.1 ppm
Switzerland	Notation (CH)	S, SSc

Dimethyl sulfoxide (67-68-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	365 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	75 mg/m³
Long-term - local effects, inhalation	17.67 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1.67 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	56 mg/m³
Long-term - systemic effects, dermal	178 mg/kg bodyweight/day
Long-term - local effects, inhalation	3.13 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	17 mg/l
PNEC aqua (marine water)	1.7 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	61.4 mg/kg dry weight
PNEC sediment (marine water)	6.14 mg/kg dry weight
PNEC (Soil)	
PNEC soil	2.32 mg/kg dry weight
PNEC (Oral)	
PNEC oral (secondary poisoning)	0.7 g/kg food
PNEC (STP)	
PNEC sewage treatment plant	11 mg/l

Glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	0.42 mg/m³
Long-term - systemic effects, dermal	6.25 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.21 mg/m³

Glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.07 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.003 mg/l
PNEC aqua (marine water)	0 mg/l
PNEC aqua (freshwater, intermittent)	0.006 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.091 mg/kg dry weight
PNEC sediment (marine water)	0.009 mg/kg dry weight
PNEC (Soil)	
PNEC soil	0.21 mg/kg dry weight
PNEC (STP)	
PNEC sewage treatment plant	0.8 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations.

Hand protection:

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm, Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Wear safety glasses (EN 166).

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type A.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless
Odour	:	No data available
Melting point/freezing point	:	No data available
Boiling point or initial boiling point and boiling range	:	No data available
Flammability	:	No data available
Lower and upper explosion limit	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	No data available
Kinematic viscosity	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (log value)	:	Not applicable
Vapour pressure	:	No data available
Density and/or relative density	:	No data available
Relative vapour density	:	No data available
Particle size	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties : No explosive properties.

Oxidising properties : No oxidising properties.

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

High temperatures.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

10.6. Hazardous decomposition products

No hazardous decomposition products known. In case of fire: Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity : Not classified

Based on available data, the classification criteria are not met

Dimethyl sulfoxide (67-68-5)	
LD50 oral rat	28300 mg/kg
LD50 dermal rat	~ 40000 mg/kg
LC50 inhalation rat	> 5.33 mg/l air, 4 h

Glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
LD50 oral rat	77 mg/kg
LD50 dermal rabbit	> 2000 mg/kg (50 % in solution)
LC50 inhalation rat	0.28 - 0.39 mg/l air, 4 h (50 % in solution)

Skin corrosion/irritation : Not classified

Based on available data, the classification criteria are not met

Serious eye damage/irritation : Not classified

Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified

Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : Not classified

Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Based on available data, the classification criteria are not met

11.2. Information on other hazards

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Dimethyl sulfoxide (67-68-5)	
LC50 fish	25000 mg/l 96 h, Danio rerio
EC50 daphnia	24600 mg/l 48 h, Daphnia magna

Dimethyl sulfoxide (67-68-5)	
ErC50 algae	17000 mg/l 72 h, Raphidocelis subcapitata

Glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
LC50 fish	10 mg/l 96 h, Oncorhynchus mykiss
EC50 daphnia	4.6 mg/l 48 h, Daphnia magna
ErC50 algae	0.375 mg/l 72 h, Desmodesmus subspicatus
NOEC fish	1.6 mg/l 97 d, Oncorhynchus mykiss
NOEC daphnia	5 mg/l 21 d, Daphnia magna
NOEC algae	0.025 mg/l 72 h, Desmodesmus subspicatus

12.2. Persistence and degradability

Dimethyl sulfoxide (67-68-5)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 %, 28 d

Glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
Persistence and degradability	Readily biodegradable.
Biodegradation	90 - 100 %, 28 d (50 % in solution)

12.3. Bioaccumulative potential

Dimethyl sulfoxide (67-68-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.35 (20 °C)

Glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.36 (pH 7, 23 °C)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.

Waste treatment methods : Do not empty into drains. Dispose of this material and its container in a safe way.

Waste code : The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

ADR

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

IMDG

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

IATA

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

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

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 applicable

Transport by sea

Not applicable

Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains substance(s) listed on the REACH Candidate List in concentrations ≥ 0.1 % or SCL: Glutaral (EC no: 203-856-5, CAS no: 111-30-8)
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1 - Slightly hazardous to water
WGK Remark : Classification according to AwSV, Annex 1
Storage class (LGK) : LGK 10 - 13
Employment restrictions : Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Changes compared to the previous version : -

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	“International Maritime Dangerous Goods Code” for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance

PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Acute Tox. 2 (Inhalation)	Acute toxicity (inhalation), Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1A	Skin sensitisation, Category 1A
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

SDS EU (REACH Annex II)

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.

Diluent BA E-2560

Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 14.07.2023 Revision date: - Version/Replaced version: 1.0/-

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

1.1. Product identifier

Product form : Mixture

Product name : Diluent BA E-2560

UFI : -

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory reagent, Immunoassays
Use by professionals.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier/Manufacturer
LDN Labor Diagnostika Nord GmbH & Co. KG
Am Eichenhain 1
48531 Nordhorn, Germany
T +49 (0)5921 81970 - F +49 (0)5921 8197 201
support@ldn.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency telephone number
Germany	LDN Labor Diagnostika Nord GmbH & Co. KG	Am Eichenhain 1 48531 Nordhorn, Germany	+49 (0) 5921-81970 (Mo-Fr 8:00-16:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 2 H319

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

Causes serious eye irritation.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Hazard statements (CLP) : H319 - Causes serious eye irritation.

Precautionary statements (CLP) : P280 - Wear eye protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice and attention.

Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Hazard statements (CLP) : -

Precautionary statements (CLP) : -

2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Citric acid, monohydrate	(CAS-No.) 5949-29-1 (EC-No.) 201-069-1	10 – 15	Eye Irrit. 2, H319 STOT SE 3, H335
Sodium hydroxide; caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6	< 2	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
Sodium hydroxide; caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6	(0.5 ≤ C < 2) Skin Irrit. 2, H315 (0.5 ≤ C < 2) Eye Irrit. 2, H319 (2 ≤ C < 5) Skin Corr. 1B, H314 (5 ≤ C ≤ 100) Skin Corr. 1A, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink plenty of water as a precaution.

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

Symptoms/effects after eye contact : Causes serious eye irritation.

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 : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Ensure adequate air ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

6.4. Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from direct sunlight. Keep out of frost.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Laboratory reagent, Immunoassays

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Citric acid, monohydrate (5949-29-1)		
Germany	TRGS 900 Local name	Zitronensäure [anhydrous, CAS 77-92-9]
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	2 E mg/m³
Germany	TRGS 900 Remark	2(I), DFG, Y
Switzerland	Local name	Acide citrique / Zitronensäure [anhydrous, CAS 77-92-9]
Switzerland	MAK (mg/m³)	2 e mg/m³
Switzerland	KZGW (mg/m³)	4 e mg/m³
Switzerland	Notation (CH)	SSc

sodium hydroxide; caustic soda (1310-73-2)		
Austria	Local name	Natriumhydroxid
Austria	MAK (OEL TWA) (mg/m³)	2 mg/m³ (E)
Austria	MAK (OEL STEL) (ppm)	4 mg/m³ (E)
Belgium	Local name	Sodium (hydroxyde de) # Natriumhydroxide
Belgium	OEL TWA (mg/m³)	2 mg/m³
Belgium	Remark	M
Switzerland	Local name	Soude caustique / Natriumhydroxid
Switzerland	MAK (mg/m³)	2 mg/m³ (i) / (e)
Switzerland	KZGW (mg/m³)	2 mg/m³ (i) / (e)
Switzerland	Notation (CH)	SS_C

sodium hydroxide; caustic soda (1310-73-2)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	1 mg/m³
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	1 mg/m³

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations.

Hand protection:

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm. Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Wear safety glasses (EN 166).

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type P2.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	No data available
Odour	:	No data available
Melting point/freezing point	:	No data available
Boiling point or initial boiling point and boiling range	:	No data available
Flammability	:	No data available
Lower and upper explosion limit	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	2.85 – 2.95
Kinematic viscosity	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (log value)	:	Not applicable
Vapour pressure	:	No data available
Density and/or relative density	:	No data available
Relative vapour density	:	No data available
Particle size	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties	:	No explosive properties
Oxidising properties	:	No oxidising properties

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

High temperatures.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. In case of fire: Toxic gases may be formed. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Citric acid, monohydrate (5949-29-1)	
LD50 oral mouse	5400 mg/kg (Citric acid, anhydrous (77-92-9))
LD50 dermal rat	> 2000 mg/kg (Citric acid, anhydrous (77-92-9))

Skin corrosion/irritation : Not classified
Based on available data, the classification criteria are not met

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified
Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified
Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met

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

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

11.2. Information on other hazards

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Citric acid, monohydrate (5949-29-1)	
LC50 fish	440 mg/l 48 h, Leuciscus idus (Citric acid, anhydrous (77-92-9))
EC50 crustacea	1535 mg/l 24 h, Daphnia magna (Citric acid, anhydrous (77-92-9))
NOEC chronic algae	425 mg/l 8 d, Scenedesmus quadricauda (Citric acid, anhydrous (77-92-9))

sodium hydroxide; caustic soda (1310-73-2)	
EC50 crustacea	40.4 mg/l 48 h, Ceriodaphnia sp.

12.2. Persistence and degradability

Citric acid, monohydrate (5949-29-1)	
Persistence and degradability	Readily biodegradable.
Biodegradation	100 % 19 d (Citric acid, anhydrous (77-92-9))

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.

Waste treatment methods : Do not empty into drains. Dispose of this material and its container in a safe way.

Waste code	:	The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR)	:	Not applicable
UN-No. (IMDG)	:	Not applicable
UN-No. (IATA)	:	Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	Not applicable
Proper Shipping Name (IMDG)	:	Not applicable
Proper Shipping Name (IATA)	:	Not applicable

14.3. Transport hazard class(es)

ADR

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

IMDG

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

IATA

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

14.4. Packing group

Packing group (ADR)	:	Not applicable
Packing group (IMDG)	:	Not applicable
Packing group (IATA)	:	Not applicable

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 applicable

Transport by sea

Not applicable

Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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 substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Water hazard class (WGK)	:	WGK 1 - Slightly hazardous to water
WGK Remark	:	Classification according to AwSV, Annex 1
Storage class (LGK)	:	LGK 12 - Non-inflammable liquids
Employment restrictions	:	Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Changes compared to the previous version : -

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	“International Maritime Dangerous Goods Code” for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

SDS EU (REACH Annex II)

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.

NaOH BA E-2787

Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 14.07.2023 Revision date: - Version/Replaced version: 1.0/-

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

1.1. Product identifier

Product form : Mixture

Product name : NaOH BA E-2787

UFI : -

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory reagent, Immunoassays
Use by professionals.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier/Manufacturer
LDN Labor Diagnostika Nord GmbH & Co. KG
Am Eichenhain 1
48531 Nordhorn, Germany
T +49 (0)5921 81970 - F +49 (0)5921 8197 201
support@ldn.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency telephone number
Germany	LDN Labor Diagnostika Nord GmbH & Co. KG	Am Eichenhain 1 48531 Nordhorn, Germany	+49 (0) 5921-81970 (Mo-Fr 8:00-16:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, Category 1	H290
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

May be corrosive to metals. Causes skin irritation. Causes serious eye irritation.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05

Signal word (CLP) : Warning

Hazard statements (CLP) : H290 - May be corrosive to metals.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.

Precautionary statements (CLP) : P280 - Wear protective gloves, protective clothing, eye protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice and attention.

Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Hazard statements (CLP) : -

Precautionary statements (CLP) : -

2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium hydroxide; caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6	< 2	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
sodium hydroxide; caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6	(0.5 ≤ C < 2) Skin Irrit. 2, H315 (0.5 ≤ C < 2) Eye Irrit. 2, H319 (2 ≤ C < 5) Skin Corr. 1B, H314 (5 ≤ C ≤ 100) Skin Corr. 1A, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink plenty of water as a precaution.

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

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

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 : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Ensure adequate air ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Absorb spillage to prevent material damage. Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

6.4. Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from direct sunlight. Keep out of frost.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

Incompatible materials : Metals.

7.3. Specific end use(s)

Laboratory reagent, Immunoassays

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

sodium hydroxide; caustic soda (1310-73-2)		
Austria	Local name	Natriumhydroxid
Austria	MAK (OEL TWA) (mg/m³)	2 mg/m³ (E)
Austria	MAK (OEL STEL) (ppm)	4 mg/m³ (E)
Belgium	Local name	Sodium (hydroxyde de) # Natriumhydroxide
Belgium	OEL TWA (mg/m³)	2 mg/m³
Belgium	Remark	M
Switzerland	Local name	Soude caustique / Natriumhydroxid
Switzerland	MAK (mg/m³)	2 mg/m³ (i) / (e)
Switzerland	KZGW (mg/m³)	2 mg/m³ (i) / (e)
Switzerland	Notation (CH)	SS_C

sodium hydroxide; caustic soda (1310-73-2)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	1 mg/m³
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	1 mg/m³

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations.

Hand protection:

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm. Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Wear safety glasses (EN 166).

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type P2.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless
Odour	:	Odourless
Melting point/freezing point	:	No data available
Boiling point or initial boiling point and boiling range	:	No data available
Flammability	:	No data available
Lower and upper explosion limit	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	13.0 – 13.5
Kinematic viscosity	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (log value)	:	Not applicable
Vapour pressure	:	No data available
Density and/or relative density	:	No data available
Relative vapour density	:	No data available
Particle size	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties	:	No explosive properties
Oxidising properties	:	No oxidising properties

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

May be corrosive to metals.

10.4. Conditions to avoid

High temperatures.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids. Alkali metals.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. In case of fire: Toxic gases may be formed. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified
Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified
Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met

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

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

11.2. Information on other hazards

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

sodium hydroxide; caustic soda (1310-73-2)	
EC50 crustacea	40.4 mg/l 48 h, Ceriodaphnia sp.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.

Waste treatment methods : Do not empty into drains. Dispose of this material and its container in a safe way.

Waste code : The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

ADR

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

IMDG

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

IATA

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

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

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 applicable

Transport by sea

Not applicable

Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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 substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1 - Slightly hazardous to water
WGK Remark : Classification according to AwSV, Annex 1
Storage class (LGK) : LGK 12 - Non-inflammable liquids
Employment restrictions : Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Changes compared to the previous version : -

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	“International Maritime Dangerous Goods Code” for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

SDS EU (REACH Annex II)

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.