

Safety Data Sheet

Subject to REGULATION of the European Parliament and Regulation EC 1907/2006
as amended by Council Directive (EU) 2015/830

Version: 1.0
Date of compilation in ENG: 16.12.2019

Revision date: -
Replacement of version - from: -



Technical drawing ink – black

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:**
Technical drawing ink – black
Substance / mixture: mixture
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Identified uses of the mixture: Technical drawing inks - hobby painting. The product is suitable for drawing on tracing paper, drawing paper and drafting. Not recommended for technical pens, but suitable for redis pens, tube pens
Uses advised against: other than intended
- 1.3 Details of the supplier of the safety data sheet:**
- 1.3.1 Company specification**
Koh-i-noor Hardtmuth a.s.
F. A. Gerstnera 21/3
371 30 České Budějovice
Czech Republic
Tel.: +420 389 000 200
E-mail: sales@koh-i-noor.cz
Internet: www.koh-i-noor.cz
- 1.3.2 A person qualified and responsible for safety data sheet**
e-mail: kin.kvalita@koh-i-noor.cz
- 1.4 Emergency telephone number:**
Czech Republic: +420 602 414 051 or Poison centre Na Bojišti 1, 128 08 Praha2,
Phone nonstop 224 919 293, 224 915 402, or (only during the day 224 914 575)
Information relevant in the country of distribution to be added.

SECTION 2 HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**
- 2.1.1 Classification according to EU Regulation no. 1272/2008**
does not meet the criteria for classification.
- 2.1.2 The most serious adverse physico-chemical effects**
Not known
- 2.1.3 The most serious adverse effects on human health**
Not known
- 2.1.4 The most serious adverse effects on the environment**
Not known
- 2.2 Label elements**
- 2.2.1 The label elements in accordance with Regulation no. (EC) no. 1272/2008**
EUH210 Safety data sheet available on request.
** it shall apply to the labeling of mixtures not intended for the general public*
- 2.3 Other hazards**
The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of EU Regulation 1907/2006.

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous substances:	Index No. CAS No. EINECS. Registration No.	Content (% ww)	Classification acc. (EC) No. 1272/2008
Disodium tetraborate, decahydrate	005-011-01-1 1303-96-4 215-540-4 01-2119490790-32	< 2	Eye Irrit. 2; H319 Repr. 1B; H360FD SCL: Repr. 1B; H360FD: C ≥ 8,5 %
ethanediol*	603-027-00-1 107-21-1 203-473-3	< 1	Acute Tox. 4, H302

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	-		
Bronopol (INN)	603-085-00-8 52-51-7 200-143-0 -	< 0,02	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 M=10 Aquatic Chronic 2, H411
acetic acid*	607-002-00-6 64-19-7 200-580-7 01-2119475328-30	< 0,1	Flam. Liq. 3, H226 Skin Corr. 1A; H314 <i>SCL:</i> <i>Skin Corr. 1A; H314: C ≥ 90 %</i> <i>Skin Corr. 1B; H314: 25 % ≤ C < 90 %</i> <i>Skin Irrit. 2; H315: 10 % ≤ C < 25 %</i> <i>Eye Irrit. 2; H319: 10 % ≤ C < 25 %</i>
*A substance for which the EU exposure workplace limit is set.			
Full text of H-phrases is described in Section 16 of this Safety Data Sheet			

SECTION 4 FIRST AID MEASURES

- 4.1 Description of first aid measures**
- 4.1.1 General information**
In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes and launder thoroughly before reusing
- 4.1.2 In case of inhalation:**
Remove affected person from the immediate area. Ensure supply of fresh air. In case of persisting adverse effects, consult a physician.
- 4.1.3 In case of eye contact:**
Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 15 minutes). Seek medical assistance.
- 4.1.4 In case of contact with skin:**
Remove contaminated clothing. Wash the affected area with soap and water, then apply a repair cream. In case of persisting adverse effects, consult a physician.
- 4.1.5 In case of ingestion:**
Rinse mouth thoroughly with water. Call a doctor. Do not induce vomiting. Never give anything by mouth to an unconscious person. In case of persisting adverse effects, consult a physician.
- 4.2 Most important symptoms and effects, both acute and delayed.**
No data available
- 4.3 Indication of any immediate medical attention and special treatment needed**
symptomatic treatment

SECTION 5 FIREFIGHTING MEASURES

- 5.1 Extinguishing media**
- 5.1.1 Suitable extinguishing media:**
Use firefighting measures that suit the environment
- 5.1.2 Unsuitable extinguishing media:**
direct water jet
- 5.2 Special hazards arising from the substance or mixture:**
In case of fire may produce hazardous combustion products presenting a health hazard
- 5.3 Advice for fire fighters:**
Wear self-contained breathing apparatus (EN 137).

SECTION 6 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures**
Wash your hands thoroughly with soap and water after work. Observe general hygienic precautions.
- 6.1.1 For non - emergency personnel**

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Wear personal protective equipment. Avoid contact with the product. Ensure a sufficient supply of fresh air.

6.1.2 For emergency responders

Observe safety rules. Wear suitable personal protective equipment, see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Inform the competent authorities in case of leakage of large quantities of product.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, soil, vermiculite). Send in suitable containers for recovery or disposal. Remove small spills with an absorbent cloth. Dispose of used sorbent in an appropriate waste container and dispose of in accordance with waste regulations, see section 13.

6.4 Reference to other sections

See sections 7, 8 and 13

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Observe the usual precautions when handling chemicals and hygiene rules. Use personal protective equipment (section 8). After work and before breaks wash your hands. When using do not eat, drink, smoke. Do not allow to enter soil / water / sewage system. No special measures required

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original containers in a dry and well-ventilated place. Containers which have already been opened must be carefully closed and stored only vertically to prevent leakage of product. Protect from heat, direct sunlight and moisture. Protect containers from damage.

7.3 Specific end use(s)

No data available

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Substances for which following concentration of occupational exposure limit values are set (COMMISSION DIRECTIVE 2000/39/EC as amended)

Chemical name	CAS Number	Eight hours mg/m ³	Short-term mg/m ³
ethanediol	107-21-1	52 mg/m ³ 20 ppm	104 mg/m ³ 20 ppm
Ammonia, anhydrous	7664-41-7	14 mg/m ³ 20 ppm	36 mg/m ³ 50 ppm
acetic acid*	64-19-7	25 mg/m ³	35 mg/m ³

* Czech Republic exp. limits
The lists valid during the making were used as basis.

Information relevant in the country of distribution to be added

8.1.2 Values DNEL and PNEC

Not available for the mixture. Available values for relevant components are listed.

DNEL: Disodium tetraborate, decahydrate

workers:	inhalation	systemic effect	long-term exposure	6,7 mg/m ³
	dermal			316,4 mg/kg/bwd
consumers:	inhalation	systemic effect	long-term exposure	3,4 mg/m ³
	dermal			159,5 mg/kg/ bwd
	oral			0,79 mg/kg/ bwd

PNEC: Disodium tetraborate, decahydrate

freshwater: 2.9 mg / l
marine water: 2.9 mg / l
Occasional leakage: 13.7 mg / l
microorganisms in sewage treatment plants: 10 mg / l
freshwater sediments: not available
marine sediments: not available

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soil (agricultural): 5.7 mg / kg of dried soil

DNEL: acetic acid

workers:	Inhalation	local effect	long-term exposure	25 mg/m ³
consumers:	Inhalation	local effect	long-term exposure	25 mg/m ³
			short-term exposure	25 mg/m ³

PNEC: acetic acid

freshwater environment: 03.058 mg / l

marine water: 0.306 mg / l

occasional leak: 30.58 mg / l

microorganisms in sewage treatment plants: 85 mg / l

Freshwater sediments: 11.36 mg / kg of dried sediment

marine sediments: 1,136 mg / kg of dried sediment

soil (agricultural): 0.47 mg / kg of dried soil

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure adequate ventilation. Observe the usual precautions and hygienic rules. Use personal protective equipment. Wash hands thoroughly after work and before a break. Do not eat, drink and smoke while working with the product. Ensure eye wash (at least running lukewarm water) at the workplace.

8.2.2 Individual protection measures, such as personal protective equipment

Personal protective equipment must be in accordance with the Directive 89/686/EEC.

8.2.2.2 Respiratory protection

not required in case of an adequate ventilation

8.2.2.3 Hand protection

Not required under normal use.

Wear protective gloves (EN 374) for industrial processing of the product. Contaminated gloves should be replaced immediately.

The selection of protective gloves depends on the conditions of use. Check gloves for leaks before each use. The resistance of the glove material must be tested before use. Protective gloves should be replaced at the earliest signs of damage. Follow the instructions for use gloves provided by the manufacturer.

8.2.2.4 Eye protection

No special precautions are required. Wear protective goggles (EN 166) for industrial processing of the product.

8.2.2.5 Protecting skin (the whole body)

Wear suitable protective clothing, work shoes.

8.2.3 Environmental exposure controls

Not necessary when used as required, avoid entering into surface waterways and sewers.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Colour	in accordance with the specification
Odour	slight, characteristic
Odour Threshold	data not available
pH	7,5-8,5
Melting point/freezing point	data not available
Boiling point/boiling range	data not available
Flash point	data not available
Evaporation rate	data not available
Flammability (solid, gas)	n.a.
Upper/lower flammability or explosive limits	data not available
Vapour pressure	data not available
Vapour density	data not available
Relative density	data not available
Solubility In water	miscible with water
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
Viscosity	data not available
Explosive properties	not explosive
Oxidising properties	data not available

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9.2 Other information

data not available

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

The product is stable under recommended storage and use conditions.

10.2 Chemical stability

The product is stable under recommended storage and use conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions known

10.4 Conditions to avoid

Temperatures below freezing.

10.5 Incompatible materials

No further relevant information available

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Based on available data the classification criteria are not met

Skin corrosion/ irritation:

Based on available data the classification criteria are not met

Serious eye damage/irritation:

Based on available data the classification criteria are not met

Skin sensitisation/ Respiratory sensitisation:

Based on available data the classification criteria are not met

Germ cell mutagenicity:

Based on available data the classification criteria are not met

Carcinogenicity:

Based on available data the classification criteria are not met

Reproductive toxicity

Based on available data the classification criteria are not met

STOT-single exposure:

Based on available data the classification criteria are not met.

STOT-repeated exposure:

Based on available data the classification criteria are not met

Aspiration hazard:

Based on available data the classification criteria are not met

11.1.1 Mixture components

Disodium tetraborate decahydrate

LD50, oral, rat (mg / kg): > 2,500 (male)

LD50, dermal, rabbit (mg / kg): > 2 000 (rabbit)

LC50, inhalation, rat, 4 hr (mg / l): > 2.12 (aerosol)

Bronopol

LD50, oral, rat (mg / kg): 305 (OECD 401)

LD50, dermal, rabbit (mg / kg): > 2 000 (rat) (OECD 402)

LC50, inhalation, rat, 4 h (mg / l): -

Acetic acid

LD50, oral, rat (mg / kg): 3310 LD50, dermal, rabbit (mg / kg): 1060 (rabbit)

LC50, inhalation, rat, 4 hours (mg / l): 11.4 (gases and vapours)

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Based on available data the classification criteria are not met

Disodium tetraborate decahydrate

Fish

LC50, Pimephales promelas: 80 mg B / l

LC50, Onchorhynchus tshawytscha: 627 mg B / l

LC50, Limanda limanda: 74 mg B / l

NOEC, Micropterus salmoides: 2.9 mg B / l

NOEC, Carassius auratus: 17 mg B / l

Crustaceans

EC50, Ceriodaphnia dubia: 113 mg B / l

EC50, Chironomus decorus: 1376 mg B / l

EC50, Litopenaeus vannamei: 45 mg B / l

EC50, Americamysis bahia: 83 mg B / l

EC10, Daphnia Magna: 5.7 mg B / l

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EC10, Chironomus riparius: 32 mg B / l
Algae
EC50, Freshwater algae (Chlorea pyrenoidosa): 10 mg B / l
EC50, Green algae (Selenastrum capricornutum): 28 mg B / l
EC10, Seaweed (Emiliana huxleyi): 5 mg B / l
EC10, Sea cyanobacteria (Anacystis marina): > 100 mg B / l
Amphibians
EC50, Rana pipiens: 86 mg B / l
EC50, Bufo fowleri: 104 mg B / l
EC10, Rana pipiens: 29 mg B / l
EC10, Bufo fowleri : 41 mg B / L

Bronopol

Fish

LC50 OECD 210 39.1 mg / kg 49 days (Oncorhynchus mykiss)

Crustaceans

NOEC OECD 211 0.27 mg / l 21 days Daphnia (Daphnia magna)

Acetic acid

Fish

LC50, 96 h, Lepomis macrochirus = 75 mg / L

Crustaceans:

EC50, 24h, Daphnia magna = 47mg / L

Algae

IC5, 16 h, Scenedesmus quadricauda = 4000 mg / l

12.2 Persistence and degradability

For mixture are not relevant toxicological data available.

12.3 Bioaccumulative potential

no bioaccumulative potential

12.4 Mobility in soil

For mixture are not relevant toxicological data available.

12.5 Results of PBT and vPvB assessments

Not available

12.6 Other adverse effects

Do not discharge the product unmonitored into the environment.

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

SECTION 13 DISPOSAL CONSIDERATION

13.1 Waste treatment methods

Dispose of unused product and contaminated packaging in labeled containers for the collection of hazardous waste. Hand over the waste to an authorized person.

Recommended disposal of product or packaging: recycle the product if possible. Contaminated packaging must be thoroughly cleaned prior to recycling. Packaging that has not been properly cleaned presents the same hazard as the product.

Recommended disposal method for consumer: Do not empty unused product into drains. Dispose of unused product and contaminated packaging at hazardous waste collection point. Smaller quantities can be disposed with household garbage

Recommended waste classification

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

20 01 28 paint, inks, adhesives and resins other than those mentioned in 20 01 27

15 01 10* packaging containing residues of or contaminated by dangerous substances

15 02 02* absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

SECTION 14 TRANSPORT INFORMATION

14.1	UN number	not regulated
14.2	UN proper shipping name	not regulated
14.3	Transport hazard class (es)	not regulated
14.4	Packing group	not regulated
14.5	Environmental hazards	not regulated

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- | | | |
|-------------|--|----------------|
| 14.6 | Special precautions for users | Not applicable |
| 14.7 | Transport in bulk according to Annex II MARPOL and IBC Code | Not applicable |

SECTION 15 REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
Regulation (EC) No1907/2006 of the European Parliament and of the Council of 18. December 2006 on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
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 (CLP)
The European Agreement Concerning the International carriage of dangerous goods by road (Agreement ADR)
NOTE: The stated regulatory information only indicate basic regulations described in this safety data sheet. Please note the possible existence of additional legislation complementing these regulations. Refer to all applicable national, international and local regulations and directives.

- 15.1.1 Regulation (EC) No 1907/2006 Article 59**
Disodium tetraborate, decahydrate
- a substance meeting the criteria set out in Article 57 of Regulation (EC) No 1907/2006 (REACH), in accordance with Article 59 of REACH and included in a candidate list for eventual inclusion in Annex XIV.

Chemical safety assessment

- 15.2**
It was not performed for the mixture.

SECTION 16 OTHER INFORMATION

- 16.1 Guidelines for training**
Inform workers with recommended use and mandatory protective equipment, first aid and prohibited handling of the mixture.
- 16.2 Information on sources of data used in the compilation of the Safety Data Sheet**
The safety data sheet has been drawn up on the basis of the manufacturer's safety data sheet.
- 16.3 Full text of H phrases according to Regulation EU 1272/2008**
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H360 FD May damage fertility or the unborn child.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
- 16.4 Changes made to the previous version of the safety data sheet**
First edition in English language

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Technical drawing inks – different colours

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:**
Technical drawing inks – different colour
Substance / mixture: mixture
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Identified uses of the mixture: Technical drawing inks - hobby painting. The product is suitable for drawing on tracing paper, drawing paper and drafting. Not recommended for technical pens, but suitable for redis pens, tube pens.

Uses advised against: other than intended
- 1.3 Details of the supplier of the safety data sheet:**
- 1.3.1 Company specification**
Koh-i-noor Hardtmuth a.s.
F. A. Gerstnera 21/3
371 30 České Budějovice
Czech Republic
Tel.: +420 389 000 200
E-mail: sales@koh-i-noor.cz
Internet: www.koh-i-noor.cz
- 1.3.2 A person qualified and responsible for safety data sheet**
e-mail: martina_sramkova@volny.cz
- 1.4 Emergency telephone number:**

Czech Republic: +420 602 414 051 or Poison centre Na Bojišti 1, 128 08 Praha2,
Phone nonstop 224 919 293, 224 915 402, or (only during the day 224 914 575)
Information relevant in the country of distribution to be added.

SECTION 2 HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**
- 2.1.1 Classification according to EU Regulation no. 1272/2008**
does not meet the criteria for classification.
- 2.1.2 The most serious adverse physic-chemical effects**
Not known
- 2.1.3 The most serious adverse effects on human health**
Not known
- 2.1.4 The most serious adverse effects on the environment**
Not known
- 2.2 Label elements**
- 2.2.1 The label elements in accordance with Regulation no. (EC) no. 1272/2008**
EUH210 Safety data sheet available on request. *
** it shall apply to the labeling of mixtures not intended for the general public*
- 2.3 Other hazards**
The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of EU Regulation 1907/2006.

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous substances:	Index No. CAS No. EINECS. Registration No.	Content (% ww)	Classification acc. (EC) No. 1272/2008
Disodium tetraborate, decahydrate	005-011-01-1 1303-96-4 215-540-4 01-2119490790-32	< 5	Eye Irrit. 2; H319 Repr. 1B; H360FD SCL: Repr. 1B; H360FD: C ≥ 8,5 %
ethanediol*	603-027-00-1 107-21-1	< 1	Acute Tox. 4, H302

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	203-473-3 -		
Bronopol (INN)	603-085-00-8 52-51-7 200-143-0 -	< 0,02	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 M=10 Aquatic Chronic 2, H411
acetic acid*	607-002-00-6 64-19-7 200-580-7 01-2119475328-30	< 0,1	Flam. Liq. 3, H226 Skin Corr. 1A; H314 SCL: <i>Skin Corr. 1A; H314: C ≥ 90 %</i> <i>Skin Corr. 1B; H314: 25 % ≤ C < 90 %</i> <i>Skin Irrit. 2; H315: 10 % ≤ C < 25 %</i> <i>Eye Irrit. 2; H319: 10 % ≤ C < 25 %</i>
*A substance for which the EU exposure workplace limit is set.			
Full text of H-phrases is described in Section 16 of this Safety Data Sheet			

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes and launder thoroughly before reusing

4.1.2 In case of inhalation:

Remove affected person from the immediate area. Ensure supply of fresh air. In case of persisting adverse effects, consult a physician.

4.1.3 In case of eye contact:

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 15 minutes). Seek medical assistance.

4.1.4 In case of contact with skin:

Remove contaminated clothing. Wash the affected area with soap and water, then apply a repair cream. In case of persisting adverse effects, consult a physician.

4.1.5 In case of ingestion:

Rinse mouth thoroughly with water. Call a doctor. Do not induce vomiting. Never give anything by mouth to an unconscious person. In case of persisting adverse effects, consult a physician.

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

No data available

4.3 Indication of any immediate medical attention and special treatment needed

symptomatic treatment

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

5.1.1 Suitable extinguishing media:

Use firefighting measures that suit the environment

5.1.2 Unsuitable extinguishing media:

direct water jet

5.2 Special hazards arising from the substance or mixture:

In case of fire may produce hazardous combustion products presenting a health hazard

5.3 Advice for fire fighters:

Wear self-contained breathing apparatus (EN 137).

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wash your hands thoroughly with soap and water after work. Observe general hygienic precautions.

6.1.1 For non - emergency personnel

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Wear personal protective equipment. Avoid contact with the product. Ensure a sufficient supply of fresh air.

6.1.2 For emergency responders

Observe safety rules. Wear suitable personal protective equipment, see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Inform the competent authorities in case of leakage of large quantities of product.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, soil, vermiculite). Send in suitable containers for recovery or disposal. Remove small spills with an absorbent cloth. Dispose of used sorbent in an appropriate waste container and dispose of in accordance with waste regulations, see section 13.

6.4 Reference to other sections

See sections 7, 8 and 13

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7.1 Precautions for safe handling

Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Observe the usual precautions when handling chemicals and hygiene rules. Use personal protective equipment (section 8). After work and before break wash your hands. When using do not eat, drink, smoke. Do not allow to enter soil / water / sewage system. No special measures required

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original containers in a dry and well-ventilated place. Containers which have already been opened must be carefully closed and stored only vertically to prevent leakage of product. Protect from heat, direct sunlight and moisture. Protect containers from damage.

7.3 Specific end use(s)

No data available

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Substances for which following concentration of occupational exposure limit values are set (COMMISSION DIRECTIVE 2000/39/EC as amended)

Chemical name	CAS Number	Eight hours mg/m ³	Short-term mg/m ³
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Ammonia, anhydrous	7664-41-7	14 mg/m ³ 20 ppm	36 mg/m ³ 50 ppm
acetic acid*	64-19-7	25 mg/m ³	35 mg/m ³

* Czech Republic exp. limits
The lists valid during the making were used as basis.

Information relevant in the country of distribution to be added

8.1.2 Values DNEL and PNEC

Not available for the mixture. Available values for relevant components are listed.

DNEL: Disodium tetraborate, decahydrate

workers:	inhalation	systemic effect	long-term exposure	6,7 mg/m ³
	dermal			316,4 mg/kg/bwd
consumers:	inhalation	systemic effect	long-term exposure	3,4 mg/m ³
	dermal			159,5 mg/kg/ bwd
	oral			0,79 mg/kg/ bwd

PNEC: Disodium tetraborate, decahydrate

freshwater: 2.9 mg / l
marine water: 2.9 mg / l
Occasional leakage: 13.7 mg / l
microorganisms in sewage treatment plants: 10 mg / l
freshwater sediments: not available
marine sediments: not available

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soil (agricultural): 5.7 mg / kg of dried soil

DNEL: acetic acid

workers:	Inhalation	local effect	long-term exposure	25 mg/m ³
consumers:	Inhalation	local effect	long-term exposure	25 mg/m ³
			short-term exposure	25 mg/m ³

PNEC: acetic acid

freshwater environment: 03.058 mg / l

marine water: 0.306 mg / l

occasional leak: 30.58 mg / l

microorganisms in sewage treatment plants: 85 mg / l

Freshwater sediments: 11.36 mg / kg of dried sediment

marine sediments: 1,136 mg / kg of dried sediment

soil (agricultural): 0.47 mg / kg of dried soil

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure adequate ventilation. Observe the usual precautions and hygienic rules. Use personal protective equipment. Wash hands thoroughly after work and before a break. Do not eat, drink and smoke while working with the product. Ensure eye wash (at least running lukewarm water) at the workplace.

8.2.2 Individual protection measures, such as personal protective equipment

Personal protective equipment must be in accordance with the Directive 89/686/EEC.

8.2.2.2 Respiratory protection

not required in case of an adequate ventilation

8.2.2.3 Hand protection

Not required under normal use.

Wear protective gloves (EN 374) for industrial processing of the product. Contaminated gloves should be replaced immediately.

The selection of protective gloves depends on the conditions of use. Check gloves for leaks before each use. The resistance of the glove material must be tested before use. Protective gloves should be replaced at the earliest signs of damage. Follow the instructions for use gloves provided by the manufacturer.

8.2.2.4 Eye protection

No special precautions are required. Wear protective goggles (EN 166) for industrial processing of the product.

8.2.2.5 Protecting skin (the whole body)

Wear suitable protective clothing, work shoes.

8.2.3 Environmental exposure controls

Not necessary when used as required, avoid entering into surface waterways and sewers.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Colour	in accordance with the specification
Odour	slight, characteristic
Odour Threshold	data not available
pH	7,5-8,5
Melting point/freezing point	data not available
Boiling point/boiling range	data not available
Flash point	data not available
Evaporation rate	data not available
Flammability (solid, gas)	n.a.
Upper/lower flammability or explosive limits	data not available
Vapour pressure	data not available
Vapour density	data not available
Relative density	data not available
Solubility In water	miscible with water
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
Viscosity	data not available
Explosive properties	not explosive
Oxidising properties	data not available

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9.2 Other information

data not available

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

The product is stable under recommended storage and use conditions.

10.2 Chemical stability

The product is stable under recommended storage and use conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions known

10.4 Conditions to avoid

Temperatures below freezing.

10.5 Incompatible materials

No further relevant information available

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Based on available data the classification criteria are not met

Skin corrosion/ irritation:

Based on available data the classification criteria are not met

Serious eye damage/irritation:

Based on available data the classification criteria are not met

Skin sensitisation/ Respiratory sensitisation:

Based on available data the classification criteria are not met

Germ cell mutagenicity:

Based on available data the classification criteria are not met

Carcinogenicity:

Based on available data the classification criteria are not met

Reproductive toxicity

Based on available data the classification criteria are not met

STOT-single exposure:

Based on available data the classification criteria are not met.

STOT-repeated exposure:

Based on available data the classification criteria are not met

Aspiration hazard:

Based on available data the classification criteria are not met

11.1.1 Mixture components

Disodium tetraborate decahydrate

LD50, oral, rat (mg / kg): > 2,500 (male)

LD50, dermal, rabbit (mg / kg): > 2 000 (rabbit)

LC50, inhalation, rat, 4 hr (mg / l): > 2.12 (aerosol)

Bronopol

LD50, oral, rat (mg / kg): 305 (OECD 401)

LD50, dermal, rabbit (mg / kg): > 2 000 (rat) (OECD 402)

LC50, inhalation, rat, 4 h (mg / l): -

Acetic acid

LD50, oral, rat (mg / kg): 3310 LD50, dermal, rabbit (mg / kg): 1060 (rabbit)

LC50, inhalation, rat, 4 hours (mg / l): 11.4 (gases and vapours)

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Based on available data the classification criteria are not met

Disodium tetraborate decahydrate

Fish

LC50, Pimephales promelas: 80 mg B / l

LC50, Onchorhynchus tshawytscha: 627 mg B / l

LC50, Limanda limanda: 74 mg B / l

NOEC, Micropterus salmoides: 2.9 mg B / l

NOEC, Carassius auratus: 17 mg B / l

Crustaceans

EC50, Ceriodaphnia dubia: 113 mg B / l

EC50, Chironomus decorus: 1376 mg B / l

EC50, Litopenaeus vannamei: 45 mg B / l

EC50, Americamysis bahia: 83 mg B / l

EC10, Daphnia Magna: 5.7 mg B / l

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EC10, Chironomus riparius: 32 mg B / l

Algae

EC50, Freshwater algae (Chlorea pyrenoidosa): 10 mg B / l

EC50, Green algae (Selenastrum capricornutum): 28 mg B / l "

EC10, Seaweed (Emiliania huxleyi): 5 mg B / l

EC10, Sea cyanobacteria (Anacystis marina):> 100 mg B / l

Amphibians

EC50, Rana pipiens: 86 mg B / l

EC50, Bufo fowleri: 104 mg B / l

EC10, Rana pipiens: 29 mg B / l

EC10, Bufo fowleri : 41 mg B / L

Bronopol

Fish

LC50 OECD 210 39.1 mg / kg 49 days (Oncorhynchus mykiss)

Crustaceans

NOEC OECD 211 0.27 mg / l 21 days Daphnia (Daphnia magna)

Acetic acid

Fish

LC50, 96 h, Lepomis macrochirus = 75 mg / L

Crustaceans:

EC50, 24h, Daphnia magna = 47mg / L

Algae

IC5, 16 h, Scenedesmus quadricauda = 4000 mg / l

12.2 Persistence and degradability

For mixture are not relevant toxicological data available.

12.3 Bioaccumulative potential

no bioaccumulative potential

12.4 Mobility in soil

For mixture are not relevant toxicological data available.

12.5 Results of PBT and vPvB assessments

Not available

12.6 Other adverse effects

Do not discharge the product unmonitored into the environment.

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

SECTION 13 DISPOSAL CONSIDERATION

13.1 Waste treatment methods

Dispose of unused product and contaminated packaging in labeled containers for the collection of hazardous waste. Hand over the waste to an authorized person.

Recommended disposal of product or packaging: recycle the product if possible. Contaminated packaging must be thoroughly cleaned prior to recycling. Packaging that has not been properly cleaned presents the same hazard as the product.

Recommended disposal method for consumer: Do not empty unused product into drains. Dispose of unused product and contaminated packaging at hazardous waste collection point. Smaller quantities can be disposed with household garbage

Recommended waste classification

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

20 01 28 paint, inks, adhesives and resins other than those mentioned in 20 01 27

15 01 10* packaging containing residues of or contaminated by dangerous substances

15 02 02* absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

SECTION 14 TRANSPORT INFORMATION

14.1	UN number	not regulated
14.2	UN proper shipping name	not regulated
14.3	Transport hazard class (es)	not regulated
14.4	Packing group	not regulated
14.5	Environmental hazards	not regulated

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- | | | |
|------|--|----------------|
| 14.6 | Special precautions for users | Not applicable |
| 14.7 | Transport in bulk according to Annex II MARPOL and IBC Code | Not applicable |

SECTION 15 REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18. December 2006 on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
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 (CLP)
The European Agreement Concerning the International carriage of dangerous goods by road (Agreement ADR)
NOTE: The stated regulatory information only indicate basic regulations described in this safety data sheet. Please note the possible existence of additional legislation complementing these regulations. Refer to all applicable national, international and local regulations and directives.
- 15.1.1 Regulation (EC) No 1907/2006 Article 59**
Disodium tetraborate, decahydrate
- a substance meeting the criteria set out in Article 57 of Regulation (EC) No 1907/2006 (REACH), in accordance with Article 59 of REACH and included in a candidate list for eventual inclusion in Annex XIV.
- 15.2 Chemical safety assessment**
It was not performed for the mixture.

SECTION 16 OTHER INFORMATION

- 16.1 Guidelines for training**
Inform workers with recommended use and mandatory protective equipment, first aid and prohibited handling of the mixture.
- 16.2 Information on sources of data used in the compilation of the Safety Data Sheet**
The safety data sheet has been drawn up on the basis of the manufacturer's safety data sheet.
- 16.3 Full text of H phrases according to Regulation EU 1272/2008**
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H360 FD May damage fertility or the unborn child.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
- 16.4 Changes made to the previous version of the safety data sheet**
First edition in English language