### BUFFER STANDARD SOLUTION (BORIC ACID/POTASSIUM CHLORIDE/SODIUM HYDROXIDE) PH 11.0 +/- 0.02 AT 20°C TRACEABLE TO NIST MSDS





## MATERIAL SAFETY DATA SHEET (MSDS)

1.1. Product identif	er in the second se	
Product form	: Mixture	
	:	
Product code	: B0018	
1.2. Relevant identi	ed uses of the substance or mixture and uses advised against	
1.2.1. Relevant identi	ed uses	
Industrial/Professional us	e spec : Industrial For professional use only	
1.2.2. Uses advised a	jainst	
No additional information	•	
1.3. Details of the s	pplier of the safety data sheet	
T.S. Details of the s	ppiler of the safety data sheet	

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#### **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

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

Not classified

## Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

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#### 2.3. Other hazards

No additional information available

#### 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]
WATER AR	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	99 - 100	Not classified
BORIC ACID AR/ACS substance listed as REACH Candidate (Boric acid)	(CAS-No.) 10043-35-3 (EC-No.) 233-139-2	0.3 - 0.5	Repr. 1A, H360
POTASSIUM CHLORIDE AR		0.3 - 0.5	Not classified
SODIUM HYDROXIDE PELLETS 98% AR/ACS	(CAS-No.) 1310-73-2	0.1 - 0.2	Skin Corr. 1A, H314
SODIUM AZIDE AR	(CAS-No.) 26628-22-8 (EC-No.) 247-852-1 (EC Index-No.) 011-004-00-7	0.05	Acute Tox. 1 (Oral), H300 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

SECTION 4: First aid measures		
4.1. Description of first aid measured	ures	
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.	
First-aid measures after skin contact	: Wash skin with plenty of water.	
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing.	
First-aid measures after ingestion	: Rinse mouth out with water.	
4.2. Most important symptoms an	nd effects, both acute and delayed	
No additional information available		
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	: Dry chemical, CO2, dry sand, or alcohol-resistant foam.	
Unsuitable extinguishing media	: Do not use a heavy water stream.	
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5.2.	Special hazards arising from the	substance or mixture
No addit	ional information available	
5.3.	Advice for firefighters	
Protectio	on during firefighting	: Do not attempt to take action without suitable protective equipment.
SECTIO	N 6: Accidental release measures	S
6.1.	Personal precautions, protective	equipment and emergency procedures
6.1.1.	For non-emergency personnel	
Emeraer	ncy procedures	: Avoid contact with skin, eyes and clothing.
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6.1.2.	For emergency responders	
Protectiv	ve equipment	: Use personal protective equipment as required.
<b>C</b> O	En la contra de la	
6.2.	Environmental precautions	
Avoid re	lease to the environment.	
6.3.	Methods and material for contain	nment and cleaning up
Methods	for cleaning up	: Clean contaminated surfaces with an excess of water.
6.4.	Reference to other sections	
No addit	ional information available	
SECTIO	N 7: Handling and storage	
7.1.	Precautions for safe handling	
		· Avoid contact with akin and avoa
	ons for safe handling	: Avoid contact with skin and eyes.
Hygiene	measures	: 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, incl	uding any incompatibilities
Storage	conditions	: Store in a well-ventilated place. Keep container tightly closed.
7.3.	Specific end use(s)	
No addit	ional information available	
SECTIO	N 8: Exposure controls/personal	protection
8.1.	Control parameters	

No additional information available

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8.2. Exposure controls	
Hand protection	: Protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection.
<b>SECTION 9: Physical and chemical prop</b>	erties
9.1. Information on basic physical a	
Physical state	: Liquid
Colour	: Clear Colorless.
Odour	: No data available
Odour threshold	: No data available
pH	: 11 +/-0.02
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
0.2 Other information	

#### 9.2. Other information

No additional information available

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<b>SECTION 10: Stability and reactivity</b>		
40.4 Depetivity		
10.1.ReactivityNo additional information available		
10.2. Chemical stability		
Stable under normal conditions.		
	- (!	
10.3. Possibility of hazardous rea	ctions	
No additional information available		
10.4. Conditions to avoid		
Direct sunlight.		
10.5. Incompatible materials		
No additional information available		
10.6. Hazardous decomposition p	roducts	
No additional information available		
SECTION 11: Toxicological informati	on	
11.1. Information on toxicologica		
Acute toxicity	: Not classified	
Skin corrosion/irritation	: Not classified	
	pH: 11 +/-0.02	
Serious eye damage/irritation	: Not classified	
	pH: 11 +/-0.02	
Respiratory or skin sensitisation	: Not classified	
Germ cell mutagenicity	: Not classified	
Carcinogenicity	: Not classified	
Reproductive toxicity	: Not classified	
STOT-single exposure	: Not classified	
STOT-repeated exposure	: Not classified	
Aspiration hazard	: Not classified	

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

No additional information available

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SODIUM AZIDE AR (26628-22-8)	
Persistence and degradability	May cause long-term adverse effects in the environment.
2.3. Bioaccumulative potential	
No additional information available	

No additional information available

#### 12.5. Results of PBT and vPvB assessment

Component	
BORIC ACID AR/ACS (10043-35-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6.	Other adverse effects	
No additional information available		
SECTI	ON 13: Disposal considerations	
13.1.	Waste treatment methods	
No add	litional information available	
SECTI	ON 14: Transport information	

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

14.1. UN number			
UN-No. (ADR)	: Not applicable		
UN-No. (IMDG)	: Not applicable		
UN-No. (IATA)	: Not applicable		
UN-No. (ADN)	: Not applicable		
UN-No. (RID)	: 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		
Proper Shipping Name (ADN)	: Not applicable		
Proper Shipping Name (RID)	: Not applicable		
14.3. Transport hazard class(es)			
ADR			
Transport hazard class(es) (ADR)	: Not applicable		
IMDG			
Transport hazard class(es) (IMDG)	: Not applicable		
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Transport hazard class(es) (IATA)	: Not applicable
ADN	
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR)	: Not applicable
Packing group (IMDG)	Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: 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	
Not applicable	
<ul> <li>Inland waterway transport</li> </ul>	
Not applicable	
- Rail transport	

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

#### 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 REACH substances with Annex XVII restrictions Contains a substance on the REACH candidate list in concentration  $\geq$  0.1% or with a lower specific limit: Boric acid (EC 233-139-2, CAS 10043-35-3)

Contains no REACH Annex XIV substances

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#### 15.1.2. National regulations

Germany	
Reference to AwSV	: Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV, Annex 1)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)
Netherlands	
SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: BORIC ACID AR/ACS is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: BORIC ACID AR/ACS is listed
Denmark	

**Recommendations Danish Regulation** 

: The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

#### 15.2. Chemical safety assessment

No additional information available

#### **SECTION 16: Other information**

#### Full text of H- and EUH-statements:

Acute Tox. 1 (Oral)	Acute toxicity (oral), Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Repr. 1A	Reproductive toxicity, Category 1A
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H300	Fatal if swallowed.
H314	Causes severe skin burns and eye damage.
H360	May damage fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.

Safety Data Sheet

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.