

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

1.1. Product identifier

Product form	: Substance
Trade name	: Borax 11%
EC index no	: 005-011-01-1
EC no	: 233-139-2;215-540-4
CAS No	: 1303-96-4
Type of product	: Fertilizer
Formula	: Na ₂ B ₄ O ₇ ·10H ₂ O
Synonyms	: anhydrous borax, decahydrate / borates, tetra, sodium salt, decahydrate / borax decahidrat / borax glass powder, decahydrate / borax, decahydrate / borax, fused, decahydrate / borax, glass, decahydrate / boraxusta, decahydrate / boric acid (H ₂ B ₄ O ₇), disodium salt, decahydrate / boric acid (H ₂ B ₄ O ₇), sodium salt, decahydrate / boric acid, disodium salt, decahydrate / boron sodium oxide (B ₄ Na ₂ O ₇), decahydrate / fused borax, decahydrate / fused sodium borate, decahydrate / rasorite 65, decahydrate / sodium baborate, decahydrate / sodium borate (=disodium tetraborate), decahydrate / sodium borate (=sodium tetraborate), decahydrate / sodium borate, fused, decahydrate / sodium boron oxide (Na ₂ B ₄ O ₇), decahydrate / sodium pyroborate, decahydrate / sodium tetraborate (Na ₂ B ₄ O ₇), decahydrate / sodium tetraborate, decahydrate / sodium tetraborate, granulated, decahydrate
BIG no	: 10686

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

1.2.1. Relevant identified uses

Main use category	: Professional use
Industrial/Professional use spec	: Fertilizer
Use of the substance/mixture	: Agriculture, forestry, fishery

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Anorel NV
Lintsesteenweg 632
2540 Hove
T +3234880233
anorel@anorel.net - www.anorel.net

1.4. Emergency telephone number

No additional information available

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
Reproductive toxicity, Category 1B	H360FD

Full text of H statements : see section 16

Specific concentration limits:

(C >= 8.5)

Repr. 1B, H360FD

Adverse physicochemical, human health and environmental effects

May damage fertility or the unborn child. Causes serious eye irritation.

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2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

GHS08

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H319 - Causes serious eye irritation
H360FD - May damage fertility. May damage the unborn child

Precautionary statements (CLP) :

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P264 - Wash hands, forearms and face thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face 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
P308+P313 - IF exposed or concerned: Get medical advice/attention

2.3. Other hazards

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

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

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	Product identifier	%
disodium tetraborate, decahydrate substance listed as REACH Candidate (Disodium tetraborate, anhydrous)	(CAS No) 1303-96-4 (EC no) 233-139-2;215-540-4 (EC index no) 005-011-01-1	>= 99.9

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Respiratory arrest: artificial respiration or oxygen. Unconscious: maintain adequate airway and respiration. Prevent cooling by covering the victim (no warming up). Cardiac arrest: perform resuscitation. Vomiting: prevent asphyxia/aspiration pneumonia. Keep watching the victim. Keep the victim calm, avoid physical strain. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Respiratory problems: consult a doctor/medical service. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Do not apply (chemical) neutralizing agents. Wash skin with plenty of water. Rinse with water.
First-aid measures after eye contact	: Consult an ophthalmologist if irritation persists. Rinse immediately with plenty of water. Do not apply (chemical) neutralizing agents. 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	: Victim is fully conscious: immediately induce vomiting. Drink plenty of water. Ingestion of large quantities: immediately to hospital. Call a poison center or a doctor if you feel unwell. Rinse mouth out with water. Consult a doctor/medical service if you feel unwell. Take the container/vomit to the doctor/hospital. Give activated charcoal. Doctor: gastric lavage.

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

Symptoms/injuries after inhalation	: Irritation of the nasal mucous membranes. At high concentrations: Cough. Dry/sore throat. Irritation of the respiratory tract.
Symptoms/injuries after skin contact	: No data available.
Symptoms/injuries after eye contact	: Slight irritation. Redness of the eye tissue. Eye irritation.
Symptoms/injuries after ingestion	: On ingestion in large quantities: nausea, vomiting. Irritation of the gastric/intestinal mucosa. Diarrhea.
Chronic symptoms	: Possible inflammation of the respiratory tract. Skin rash/inflammation. Inflammation/damage of the eye tissue. Irritation of the respiratory tract. Nosebleeding. Irritation of the nasal mucous membranes.

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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 : Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam.
Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not combustible.
Explosion hazard : Not applicable.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Keep upwind. Consider evacuation.
Firefighting instructions : Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Compressed air/oxygen apparatus. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Butyl rubber gloves. See Heading 8.
Emergency procedures : No naked flames. Mark the danger area. Avoid dust formation. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Consult "Material-handling" to select material of containers. Pump up the product into a suitably labelled spare container. Knock down/dilute dust cloud with water spray. Contain leaking substance, pump over in suitable containers.
Methods for cleaning up : Mechanically recover the product. Absorb spillage to prevent material damage. Collect spillage. Wash clothing and equipment after handling. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from naked flames/heat. Handle in accordance with good industrial hygiene and safety procedures. Comply with applicable regulations. Keep container tight closed. Carry out operations in the open/under local exhaust/ventilation or with respiratory protection. Avoid dust formation. Do not discharge the waste into the drain. Measure the concentration in the atmosphere. Observe strict hygiene. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes.
Hygiene measures : Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.
Heat and ignition sources : Keep away from naked flames/heat.
Information on mixed storage : Reducing agents. Water. Acids.
Storage area : Store in a well-ventilated place. Store at ambient temperature. Store in a dry area. Meet the legal requirements.
Special rules on packaging : Hermetical. watertight. dry. Clean.
Packaging materials : Synthetic material. Polyethylene. wood. paper and cardboard packaging.

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Borax 11% (1303-96-4)		
France	VME (mg/m ³)	5 mg/m ³ (Sodium (tétraborate, décahydraté); France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)

Borax 11% (1303-96-4)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	12.8 mg/m ³
Acute - local effects, inhalation	22.3 mg/m ³
Long-term - systemic effects, dermal	42478 mg/kg bodyweight/day
DNEL/DMEL (General population)	
Acute - systemic effects, oral	1.5 mg/kg bodyweight
Acute - local effects, inhalation	22.3 mg/m ³
Long-term - systemic effects, oral	1.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	6.5 mg/m ³
Long-term - systemic effects, dermal	1.5 mg/kg bodyweight/day
Long-term - local effects, inhalation	22.3 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	1.35 mg/l
PNEC aqua (marine water)	1.35 mg/l
PNEC aqua (intermittent, freshwater)	9.1 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1.8 mg/kg dwt
PNEC sediment (marine water)	1.8 mg/kg dwt
PNEC (Soil)	
PNEC soil	5.4 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	1.75 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Materials for protective clothing:

Good resistance: Butyl rubber gloves. neoprene/natural rubber. PVC gloves

Hand protection:

Protective gloves

Eye protection:

In case of dust production: protective goggles. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Dust production: dust mask with filter type P2. High dust production: compressed air/oxygen apparatus

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	: Solid
Appearance	: Microprills.
Molecular mass	: 381.37 g/mol

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Colour	: white.
Odour	: odourless.
Odour threshold	: No data available
pH	: 9 (5.0 %)
pH solution	: 5 %
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 75 °C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: 320 °C
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: < 0.1 hPa (20 °C)
Relative vapour density at 20 °C	: No data available
Relative density	: 1.7
Density	: 1730 kg/m ³
Solubility	: Soluble in water. Soluble in glycerol. Water: 6 g/100ml
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

Minimum ignition energy	: Not applicable
VOC content	: Not applicable
Other properties	: Hygroscopic. Substance has basic reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

On burning formation of metallic fumes. Reacts with (strong) reducers.

10.2. Chemical stability

Hygroscopic.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Borax 11% (1303-96-4)	
LD50 oral rat	2660 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)

Skin corrosion/irritation	: Not classified pH: 9 (5.0 %)
Serious eye damage/irritation	: Causes serious eye irritation. pH: 9 (5.0 %)
Respiratory or skin sensitisation	: Not classified

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Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility. May damage the unborn child.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Ecology - air	: TA-Luft Klasse 5.2.1. Not dangerous for the ozone layer.
Ecology - water	: Ground water pollutant. Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC). Slightly harmful to fishes (LC50(96h) 100-1000 mg/l). Slightly harmful to invertebrates (EC50: 100 - 1000 mg/l). Slightly harmful to algae (EC50: 100 - 1000 mg/l). Mild water pollutant (surface water). Not harmful to activated sludge. Inhibition of activated sludge. pH shift.

Borax 11% (1303-96-4)	
LC50 fish 1	100 - 1000 mg/l (LC50; 96 h)
LC50 fish 2	1900 mg/l (LC50)
EC50 Daphnia 1	141 mg/l (EC50; 48 h)
Threshold limit algae 1	158 mg/l (EC50; 96 h)

12.2. Persistence and degradability

Borax 11% (1303-96-4)	
Persistence and degradability	Not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

Borax 11% (1303-96-4)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Borax 11% (1303-96-4)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

12.5. Results of PBT and vPvB assessment

Borax 11% (1303-96-4)	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Precipitate/make insoluble. Remove to an authorized dump (Class I).
Additional information	: LWCA (the Netherlands): KGA category 05. Hazardous waste according to Directive 2008/98/EC.
European List of Waste (LoW) code	: 06 02 05* - other bases

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SECTION 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

IATA

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

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

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

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Disodium tetraborate, anhydrous is on the REACH Candidate List

Borax 11% is not on the REACH Annex XIV List

VOC content : Not applicable

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
H319	Causes serious eye irritation
H360FD	May damage fertility. May damage 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