

**SECTION 1: Identification****1.1. GHS Product identifier**

Product form	: Substance
Trade name	: ETİFERT-B11
Chemical name	: Sodium tetraborate decahydrate, disodium tetraborate, borax disodium tetraborate, anhydrous
IUPAC name	: disodium tetraborate, anhydrous
Substance type	: Mono-constituent
EC-No.	: 215-540-4
EC Index-No.	: 005-011-01-1
CAS-No.	: 1303-96-4
Formula	: Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> ·10H <sub>2</sub> O
Product group	: Trade product

**1.2. Other means of identification**

No additional information available

**1.3. Recommended use of the chemical and restrictions on use**

Recommended use	: Agriculture (Fertilizer, Formulation of fertilizer) Wood articles
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**1.4. Supplier's details****Supplier**

ETİ MADEN İŞLETMELERİ GENEL MÜDÜRLÜĞÜ

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+90 312 294 20 00

**SECTION 2: Hazard identification****2.1. Classification of the substance or mixture****Classification according to the United Nations GHS**

Acute toxicity (oral), Category 5	H303
Serious eye damage/eye irritation, Category 2A	H319
Reproductive toxicity, Category 2	H361d
Full text of H statements	: see section 16

Adverse physicochemical, human health and environmental effects	: Suspected of damaging the unborn child,Harmful if swallowed,Causes serious eye irritation.
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**2.2. GHS Label elements, including precautionary statements****Labelling according to the United Nations GHS**

Hazard pictograms (GHS UN)



Signal word (GHS UN)	: Warning
Hazard statements (GHS UN)	: H303 - May be harmful if swallowed H319 - Causes serious eye irritation H361d - Suspected of damaging the unborn child

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Precautionary statements (GHS UN) : P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P264 - Wash ... thoroughly after handling.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....  
P312 - Call a POISON CENTER/doctor/... if you feel unwell.  
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.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P405 - Store locked up.

### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type : Mono-constituent  
IUPAC name : disodium tetraborate, anhydrous  
Chemical name : Sodium tetraborate decahydrate, disodium tetraborate, borax disodium tetraborate, anhydrous  
Substance identification codes: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
Disodium tetraborate decahydrate (Main constituent)	(CAS-No.) 1303-96-4	≥ 99.9	Acute Tox. 5 (Oral), H303 Eye Irrit. 2A, H319 Repr. 2, H361

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.  
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 : 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. Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after eye contact : Eye irritation.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective actions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. 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

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

#### 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.

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### 6.3. Methods and materials for containment and cleaning up

- Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. 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 : 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.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

ETIFERT-B11 (1303-96-4)	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	316.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	6.7 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - systemic effects, oral	0.79 mg/kg bodyweight/day
Long-term - systemic effects, oral	0.79 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.4 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	159.5 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2.9 mg/l
PNEC aqua (marine water)	2.9 mg/l
PNEC aqua (intermittent, freshwater)	13.7 mg/l
<b>PNEC (Soil)</b>	
PNEC soil	5.7 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l

### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment (PPE)

- Hand protection : Protective gloves  
Eye protection : Safety glasses  
Skin and body protection : Wear suitable protective clothing  
Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.  
Personal protective equipment symbol(s)



### 8.4. Exposure limit values for the other components

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Basic physical and chemical properties

- Physical state : Solid

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Molecular mass	: 381.37 g/mol
Colour	: white.
Odour	: odourless.
Odour threshold	: N.A.
Melting point	: 741 °C
Freezing point	: Not applicable
Boiling point	: 1575 °C
Flammability (solid, gas)	: N.A Non flammable.
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable
Flash point	: Non flammable
Auto-ignition temperature	: N.A.
Decomposition temperature	: No data available
pH	: 9.2 @ 20 C
pH solution	: 1 %
Viscosity, kinematic (calculated value) (40 °C)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Negligible @20 C
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: No data available
Solubility	: Water: 4.7 – 65.6 4.7 % @20 C; 65.6 % @ 100 C
Viscosity, dynamic	: No data available
Particle size	: +1,180 mm / -0,063 mm
Particle size distribution	: 4 % max / 4 % max
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle specific surface area	: Not available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 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 (oral)	: May be harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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### ETIFERT-B11 (1303-96-4)

LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:FIFRA (40 CFR 163)
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Skin corrosion/irritation	: Not classified pH: 9.2 @ 20 C
Serious eye damage/irritation	: Causes serious eye irritation. pH: 9.2 @ 20 C
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

### ETIFERT-B11 (1303-96-4)

Viscosity, kinematic	No data available
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## 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.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

### ETIFERT-B11 (1303-96-4)

LC50 - Fish [1]	74 mg/l Test organisms (species): Limanda limanda
LC50 - Fish [2]	79.7 mg/l Test organisms (species): Pimephales promelas
EC50 72h - Algae [1]	66 mg/l Test organisms (species): Phaeodactylum tricornutum
EC50 72h - Algae [2]	54 mg/l Test organisms (species): Phaeodactylum tricornutum
NOEC chronic fish	6.4 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '34 d'

### 12.2. Persistence and degradability

#### ETIFERT-B11 (1303-96-4)

Persistence and degradability	Boron is naturally occurring and ubiquitous in the environment. Disodium tetraborate decahydrate decomposes in the environment to natural borate.
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### 12.3. Bioaccumulative potential

#### ETIFERT-B11 (1303-96-4)

Bioaccumulative potential	Not bioaccumulative.
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### 12.4. Mobility in soil

#### ETIFERT-B11 (1303-96-4)

Mobility in soil	The product is soluble in water and is leachable through normal soil.
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### 12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

UN RTDG	IMDG	IATA
<b>14.1. UN number</b>		
Not regulated for transport		
<b>14.2. UN Proper Shipping Name</b>		
Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>		
Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available		

#### 14.6. Special precautions for user

**- UN RTDG**

No data available

**- IMDG**

No data available

**- IATA**

No data available

#### 14.7. Transport in bulk according to IMO instruments

Not applicable

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations specific for the product in question

Regulatory reference : Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on KECL/KECI (Korean Existing Chemicals Inventory)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on the Canadian DSL (Domestic Substances List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- Directive 79/831/EEC, sixth Amendment of Directive 67/548/EEC (dangerous substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the United States TSCA (Toxic Substances Control Act) inventory.

### SECTION 16: Other information

Issue date : 02/01/2017

Revision date : 03/01/2021

Section	Changed item	Change	Comments
		Added	This SDS has been compiled in accordance with UN-GHS (Rev.6) (2015) for the first time. (February, 2017/ Rev. No:00)
		Added	This SDS was updated in line with

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			"Standardization and Simplification of Bag Printings" (January, 2018/ Rev. No: 00.1)
		Added	This SDS was updated to include K-REACH Registration number. ( February 2019, Rev. No: 00.2)

### Abbreviations and acronyms

: CAS-No. - Chemical Abstract Service number  
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE - Acute Toxicity Estimate  
BCF - Bioconcentration factor  
BLV - Biological limit value  
BOD - Biochemical oxygen demand (BOD)  
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008  
COD - Chemical oxygen demand (COD)  
DMEL - Derived Minimal Effect level  
DNEL - Derived-No Effect Level  
EC50 - Median effective concentration  
EC-No. - European Community number  
ED - Endocrine disrupting properties  
EN - European Standard  
IARC - International Agency for Research on Cancer  
IATA - International Air Transport Association  
IMDG - International Maritime Dangerous Goods  
IOELV - Indicative Occupational Exposure Limit Value  
LC50 - Median lethal concentration  
LD50 - Median lethal dose  
LOAEL - Lowest Observed Adverse Effect Level  
N.O.S. - Not Otherwise Specified  
NOAEC - No-Observed Adverse Effect Concentration  
NOAEL - No-Observed Adverse Effect Level  
NOEC - No-Observed Effect Concentration  
OECD - Organisation for Economic Co-operation and Development  
OEL - Occupational Exposure Limit  
PBT - Persistent Bioaccumulative Toxic  
PNEC - Predicted No-Effect Concentration  
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
SDS - Safety Data Sheet  
STP - Sewage treatment plant  
ThOD - Theoretical oxygen demand (ThOD)  
TLM - Median Tolerance Limit  
TRGS - Technical Rules for Hazardous Substances  
VOC - Volatile Organic Compounds  
vPvB - Very Persistent and Very Bioaccumulative  
WGK - Water Hazard Class

### Training advice

: Normal use of this product shall imply use in accordance with the instructions on the packaging.

### Other information

: **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H-statements & Precautionary statements (GHS UN):	
H303	May be harmful if swallowed
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.

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P264	Wash ... thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....
P312	Call a POISON CENTER/doctor/... if you feel unwell.
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.
P337+P313	If eye irritation persists: Get medical advice/attention.
P405	Store locked up.

SDS UN - ETI Maden

*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.*