

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

Product form : Mixture  
Trade name : ETİ-KDot  
Product group : Trade product

**1.2. Other means of identification**

Other means of identification : Potassium added Disodium octaborate tetrahydrate

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

Use of the substance/mixture : Fertilizers  
Recommended uses and restrictions : Not restricted

**1.4. Supplier's details****Supplier**

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**1.5. Emergency phone number**

+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 Calculation method  
Reproductive toxicity, Category 2 H361d Calculation method  
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects : Suspected of damaging the unborn child,Harmful if swallowed.

**2.2. GHS Label elements, including precautionary statements****Labelling according to the United Nations GHS**

Hazard pictograms (GHS UN) :



Signal word (GHS UN) : Warning  
Hazardous ingredients : Disodium octaborate tetrahydrate  
Hazard statements (GHS UN) : H303 - May be harmful if swallowed  
H361d - Suspected of damaging the unborn child  
Precautionary statements (GHS UN) : P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....  
P312 - Call a POISON CENTER/doctor/... if you feel unwell.  
P308+P313 - IF exposed or concerned: 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**

Not applicable

# ETi-KDot

## Safety Data Sheet

according to the United Nations GHS (Rev. 7, 2017)

### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Disodium octaborate tetrahydrate	(CAS-No.) 12280-03-4	≤ 98.09	Acute Tox. 5 (Oral), H303 Repr. 2, H361d
potassium chloride	(CAS-No.) 7447-40-7	≥ 1.91	Not classified

Full text of H-statements: see section 16

## 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 eyes with water as a precaution.
- 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

No additional information available

### 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.

#### 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.

### 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.

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

No additional information available

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

# ETi-KDot

## Safety Data Sheet

according to the United Nations GHS (Rev. 7, 2017)

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
Molecular mass	: 412.5 g/mol
Colour	: white.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: 815 °C
Freezing point	: Not applicable
Boiling point	: Not available
Flammability (solid, gas)	: Non flammable.
Explosive limits	: Not applicable Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: 8.5 @ 20°C
pH solution	: 1 %
Viscosity, kinematic (calculated value) (40 °C)	: Not applicable
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	: 1.87 Type: 'relative density' Temp.: 22 °C
Relative vapour density at 20 °C	: Not applicable
Relative density of saturated gas/air mixture	: 1874 kg/m <sup>3</sup> Type: 'density' Temp.: 22 °C
Solubility	: Water: 9.7 % @ 20°C; 27.4 @ 40°C
Particle size	: Not available
Particle size distribution	: Not available
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

# ETi-KDot

## Safety Data Sheet

according to the United Nations GHS (Rev. 7, 2017)

### 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

ATE UN (oral)	2548.68 mg/kg bodyweight
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#### Disodium octaborate tetrahydrate (12280-03-4)

LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:FIFRA (40 CFR 163)
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#### potassium chloride (7447-40-7)

LD50 oral rat	≈ 3020 mg/kg bodyweight Animal: rat, Animal sex: female
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Skin corrosion/irritation : Not classified  
pH: 8.5 @ 20°C

Serious eye damage/irritation : Not classified  
pH: 8.5 @ 20°C

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

#### potassium chloride (7447-40-7)

NOAEL (chronic, oral, animal/male, 2 years)	≈ 1820 mg/kg bodyweight Animal: rat, Animal sex: male, Remarks on results: other:Effect type: toxicity (migrated information)
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Reproductive toxicity : Suspected of damaging fertility or the unborn child.

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

#### potassium chloride (7447-40-7)

NOAEL (oral, rat, 90 days)	≈ 1820 mg/kg bodyweight Animal: rat, Animal sex: male
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Aspiration hazard : Not classified

#### ETi-KDot

Viscosity, kinematic	Not applicable
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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

# ETi-KDot

## Safety Data Sheet

according to the United Nations GHS (Rev. 7, 2017)

<b>Disodium octaborate tetrahydrate (12280-03-4)</b>	
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'

<b>potassium chloride (7447-40-7)</b>	
LC50 - Fish [1]	880 mg/l Test organisms (species): Pimephales promelas
EC50 - Other aquatic organisms [1]	440 – 880 mg/l Test organisms (species): other:see below
EC50 - Other aquatic organisms [2]	580 – 670 mg/l Test organisms (species): other:see below
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

### 12.2. Persistence and degradability

<b>ETi-KDot</b>	
Persistence and degradability	Boron is naturally occurring and ubiquitous in the environment. Disodium octaborate tetrahydrate decomposes in the environment to natural borate.

<b>Disodium octaborate tetrahydrate (12280-03-4)</b>	
Persistence and degradability	Boron is naturally occurring and ubiquitous in the environment. Disodium octaborate tetrahydrate decomposes in the environment to natural borate.

### 12.3. Bioaccumulative potential

<b>ETi-KDot</b>	
Bioaccumulative potential	Not bioaccumulative.

<b>Disodium octaborate tetrahydrate (12280-03-4)</b>	
Bioaccumulative potential	Not bioaccumulative.

### 12.4. Mobility in soil

<b>ETi-KDot</b>	
Mobility in soil	This product is soluble in water and is leachable through normal soil.

<b>Disodium octaborate tetrahydrate (12280-03-4)</b>	
Mobility in soil	This product is soluble in water and is leachable through normal soil.

### 12.5. Other adverse effects

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

## 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		

# ETi-KDot

## Safety Data Sheet

according to the United Nations GHS (Rev. 7, 2017)

14.2. UN Proper Shipping Name		
Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
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 the United States TSCA (Toxic Substances Control Act) inventory  
 Listed on the Canadian DSL (Domestic Substances List)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
 Listed on KECL/KECI (Korean Existing Chemicals Inventory)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China).

## SECTION 16: Other information

Issue date : 01/01/2020

Revision date : 01/11/2021

Section	Changed item	Change	Comments
		Modified	This SDS has been compiled for the first time in accordance with the GHS (Rev.6) (2015)-Guidance on the Compilation of Safety data Sheets.(Jan,2020; Rev No:00)

# ETİ-KDot

## Safety Data Sheet

according to the United Nations GHS (Rev. 7, 2017)

Abbreviations and acronyms	: CAS-No. - Chemical Abstract Service number ATE - Acute Toxicity Estimate BCF - Bioconcentration factor BLV - Biological limit value CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DMEL - Derived Minimal Effect level DNEL - Derived-No Effect Level EC-No. - European Community number EC50 - Median effective concentration ED - Endocrine disrupting properties EN - European Standard IMDG - International Maritime Dangerous Goods IATA - International Air Transport Association IARC - International Agency for Research on Cancer 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 SDS - Safety Data Sheet TRGS - Technical Rules for Hazardous Substances 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	: <b>DISCLAIMER OF LIABILITY</b> 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
H361d	Suspected of damaging the unborn child
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....
P312	Call a POISON CENTER/doctor/... if you feel unwell.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.

SDS UN - ETİ 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.*