

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

1.1. Product identifier

Product form : Mixture
Trade name : Biorad Alkali X

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

Use of the substance/mixture : Disinfectant

1.3. Details of the supplier of the safety data sheet

Necm Kimya Akaryakıt Ürünleri ve Medikal Malzemeler Sanayi ve Ticaret Limitet Şirketi
Battal Gazi Mah. Şark Cad. Aytop Gıda Sitesi I.Blok No:14
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T + 90 216 669 06 66 - F + 90 216 669 06 90/91
info@necmkimya.com.tr - www.necmkimya.com.tr

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Turkey	Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzıssıhha Merkezi Başkanlığı	Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara	114	Information is provided to public and medical personnel on poisoning incidents via 114.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.

Skin corrosion/irritation, Category 1 H314

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : Causes severe skin burns and eye damage.

2.2. Label elements

Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.

Hazard pictograms (SEA) :



GHS05

Signal word (SEA) : Danger
Hazardous ingredients : Potassium hydroxide
Hazard statements (SEA) : H314 - Causes severe skin burns and eye damage.
Precautionary statements (SEA) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Other hazards not contributing to the classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.
Potassium hydroxide	(CAS-No.) 1310-58-3 (EC-No.) 215-181-3	20	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1, H314
Disodium phosphate	(CAS-No.) 7558-79-4 (EC-No.) 231-448-7	7	Not classified
Edetic acid; (EDTA)	(CAS-No.) 60-00-4 (EC-No.) 200-449-4 (EC Index-No.) 607-429-00-8	7	Eye Irrit. 2, H319
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	(CAS-No.) 68391-01-5 (EC-No.) 269-919-4	1	Acute Tox. 4 (Oral), H302 Skin Corr. 1, H314 Aquatic Acute 1, H400
Benzotriazole	(CAS-No.) 95-14-7 (EC-No.) 202-394-1	0.008	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: If experiencing respiratory symptoms: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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	: Water spray. Dry powder. Foam. Carbon dioxide.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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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. Do not breathe dust/fume/gas/mist/vapours/spray.
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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".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

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. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. 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.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potassium hydroxide (1310-58-3)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	1 mg/m ³
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	1 mg/m ³
Disodium phosphate (7558-79-4)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	4.07 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	3.04 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.05 mg/l
PNEC aqua (marine water)	0.005 mg/l
PNEC aqua (intermittent, freshwater)	0.5 mg/l
PNEC (STP)	
PNEC sewage treatment plant	50 mg/l
Benzotriazole (95-14-7)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1.08 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	19 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	0.54 mg/kg bodyweight/day
Long-term - systemic effects, oral	0.54 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	9.55 mg/m ³
Long-term - systemic effects, dermal	0.54 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.0194 mg/l
PNEC aqua (marine water)	0.0194 mg/l
PNEC aqua (intermittent, freshwater)	0.158 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.00375 mg/kg dwt
PNEC sediment (marine water)	0.00375 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.003 mg/kg dwt
PNEC (STP)	

Benzotriazole (95-14-7)	
PNEC sewage treatment plant	0.1 mg/l
edetic acid (60-00-4)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	3 mg/m ³
Long-term - local effects, inhalation	1.5 mg/m ³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	1.2 mg/m ³
Long-term - systemic effects, oral	25 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.6 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	2.2 mg/l
PNEC aqua (marine water)	0.22 mg/l
PNEC aqua (intermittent, freshwater)	1.2 mg/l
PNEC (Soil)	
PNEC soil	0.72 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	43 mg/l

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment
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	: Liquid
Appearance	: Clear
Colour	: Colourless
Odour	: Characteristic
pH	: 9 – 11
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
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)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: 0.87 – 0.93
Relative density	: No data available
Solubility	: Soluble in water.

9.2. Other information

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) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Disodium phosphate (7558-79-4)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LC50 Inhalation - Rat	> 0.83 mg/l air Animal: rat, Guideline: EPA OPP 81-3 (Acute inhalation toxicity), Guideline: other:U.S. Environmental Protection Agency Toxic Substances Health Effects Test Guidelines, October 1984 (PB82-232984) Acute Inhalation Toxicity Study, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: other:FMC Acute Inhalation Toxicity Protocol Number 27

Benzotriazole (95-14-7)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

edetic acid (60-00-4)	
LD50 oral rat	4500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)

Skin corrosion/irritation : Causes severe skin burns.

pH: 9 – 11

Serious eye damage/irritation : Assumed to cause serious eye damage

pH: 9 – 11

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

Disodium phosphate (7558-79-4)	
NOAEL (subchronic, oral, animal/male, 90 days)	322.88 mg/kg bodyweight Animal: dog, Animal sex: male
NOAEL (subchronic, oral, animal/female, 90 days)	492.77 mg/kg bodyweight Animal: dog, Animal sex: female

edetic acid (60-00-4)	
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	0.015 mg/l air Animal: rat, Animal sex: female, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (oral, rat, 90 days)	≥ 500 mg/kg bodyweight Animal: rat

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

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

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

Disodium phosphate (7558-79-4)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

Benzotriazole (95-14-7)	
LC50 - Fish [1]	55 mg/l Test organisms (species): Cyprinodon variegatus
LC50 - Fish [2]	180 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	137 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	75 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	29 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

Edetic acid (60-00-4)	
EC50 - Crustacea [1]	140 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 60 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	50 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 25.7 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '35 d'

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Biorad Alkali	
Bioaccumulative potential	No additional information available

12.4. Mobility in soil

Biorad Alkali	
Mobility in soil	No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste Management Regulation published in the Official Journal numbered 29314 on April 2, 2015.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

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

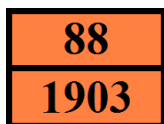
ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1903	1903	1903	1903	1903
14.2. UN proper shipping name				
DISINFECTANT, LIQUID, CORROSIVE, N.O.S.	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.	Disinfectant, liquid, corrosive, n.o.s.	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
Transport document description				
UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S., 8, I, (E)	UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S., 8, I	UN 1903 Disinfectant, liquid, corrosive, n.o.s., 8, I	UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S., 8, I	UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S., 8, I

ADR	IMDG	IATA	ADN	RID
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
I	I	I	I	I
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	: C9
Special provisions (ADR)	: 274
Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P001
Mixed packing provisions (ADR)	: MP8, MP17
Tank code (ADR)	: L10BH
Vehicle for tank carriage	: AT
Transport category (ADR)	: 1
Special provisions for carriage - Operation (ADR)	: S20
Hazard identification number (Kemler No.)	: 88
Orange plates	:



Tunnel restriction code (ADR)	: E
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- Transport by sea

Special provisions (IMDG)	: 274
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P001
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: B
Properties and observations (IMDG)	: A wide variety of corrosive liquids. Causes burns to skin, eyes and mucous membranes.

- Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 850
PCA max net quantity (IATA)	: 0.5L
CAO packing instructions (IATA)	: 854
CAO max net quantity (IATA)	: 2.5L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L

- Inland waterway transport

Classification code (ADN)	: C9
Special provisions (ADN)	: 274

Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

- Rail transport

Classification code (RID)	: C9
Special provisions (RID)	: 274
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P001
Mixed packing provisions (RID)	: MP8, MP17
Tank codes for RID tanks (RID)	: L10BH
Special provisions for RID tanks (RID)	: TU38, TE22
Transport category (RID)	: 1
Hazard identification number (RID)	: 88

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. National regulations

Local regulations (Turkey)	: Regulation on Transportation of Dangerous Goods by Road published in the Official Journal numbered 28801 on October 24, 2013
	Personal Protective Equipment Regulation published in the Official Journal numbered 30761 on May 1, 2019
	Regulation on Use of Personal Protective Equipments in Workplaces published in the Official Journal numbered 28695 on July 2, 2013
	Occupational Health and Safety Regulation published in the Official Journal numbered 25311 on December 9, 2003
	Regulation on Test Methods that will be Applied to Determine the Physicochemical, Toxicological and Ecotoxicological Properties of Substances and Mixtures published in the Official Journal numbered 28848 on December 11, 2013
	Regulation on Health and Safety Precautions When Working with Chemical Substances published in the Official Journal numbered 28733 on August 12, 2013
	Regulation on Health and Safety Precautions When Working with Carcinogenic and Mutagenic Substances published in the Official Journal numbered 28730 on August 6, 2013.

This product doesn't contain any substances that is controlled or prohibited for use according to the Regulation on Ozone Depleting Substances published in the Official Journal numbered 30031 on April 7, 2017.

SECTION 16: Other information

Abbreviations and acronyms:

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)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose

Biorad Alkali X

Safety Data Sheet

In accordance with the Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures published in the Official Journal numbered 29204 on December 13, 2014

Version: 1.0 Issue date: 18.06.2021

LOAEL	Lowest Observed Adverse Effect Level
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
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
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative

Data sources : ECHA (European Chemicals Agency). Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.

Full text of H- and EUH-statements

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Safety Data Sheet author's

Name	İrem BEKTAŞ KART
Certificate number	KDU-A-0-0045
Certificate valid until	30/04/2024
Contact information	irem@bekkdanismanlik.com

Safety Data Sheet (SDS), Turkey

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.