

according to Regulation (EC) No. 1907/2006

Creation Date 16-Nov-2010 Revision Date 13-Oct-2023 Revision Number 8

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description: <u>Tris-EDTA, 1X Solution (pH 7.4)</u>
Cat No. : <u>BP2476-1; BP2476-100; BP2476-500</u>

Synonyms Tromethane; Tromethamine; Tris buffer; 2-Amino-2-(hydroxymethyl)-1,3-propanediol; TRIS

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

Recommended Use Laboratory chemicals.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company

EU entity/business name

Thermo Fisher Scientific

Janssen Pharmaceuticalaan 3a, 2440 Geel,

Belaium

UK entity/business name

Fisher Scientific UK
Bishop Meadow Road.

Loughborough, Leicestershire LE11 5RG,

United Kingdom

Swiss distributor - Fisher Scientific AG Neuhofstrasse 11, CH 4153 Reinach

Tel: +41 (0) 56 618 41 11

e-mail - infoch@thermofisher.com

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

customers in Switzerland:

Tox Info Suisse Emergency Number: 145 (24hr)

Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)

Chemtrec (24h) Toll-Free: 0800 564 402 Chemtrec Local: +41-43 508 20 11 (Zurich)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Tris-EDTA, 1X Solution (pH 7.4)

Revision Date 13-Oct-2023

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Based on available data, the classification criteria are not met

Health hazards

Environmental hazards

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

2.2. Label elements

None required

2.3. Other hazards

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Ethylenediaminetetraacetic acid	60-00-4	EEC No. 200-449-4	<1	Eye Irrit. 2 (H319) Acute Tox. 4 (H332) STOT RE 2 (H373)
Hydrochloric acid	7647-01-0	231-595-7	<1	Met. Corr. 1 (H290) Skin Corr. 1B (H314) Eye Dam. 1 (H318) STOT SE 3 (H335)
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	77-86-1	201-064-4	<2	-
Water	7732-18-5	231-791-2	95-97	-

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Hydrochloric acid	Skin Corr. 1B :: C>=25% Skin Irrit. 2 :: 10%<=C<25% Eye Irrit. 2 :: 10%<=C<25% STOT SE 3 :: C>=10% Met. Corr. 1 :: C>=0.1%	-	-

Tris-EDTA, 1X Solution (pH 7.4)

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if

symptoms occur.

Skin Contact Rinse skin with water. Get medical attention if symptoms occur.

Ingestion Do NOT induce vomiting. Get medical attention.

Inhalation Remove to fresh air. Get medical attention if symptoms occur. If not breathing, give artificial

respiration.

Self-Protection of the First Aider No special precautions required.

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

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Hazardous Combustion Products

Nitrogen oxides (NOx).

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Avoid contact with skin and eyes.

6.2. Environmental precautions

ACRBP2476

Revision Date 13-Oct-2023

Tris-EDTA, 1X Solution (pH 7.4)

Revision Date 13-Oct-2023

Avoid release to the environment. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Avoid contact with skin and eyes. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510

Storage Class (LGK) (Germany)

Storage Class/LGK 12

Switzerland - Storage of hazardous substances

Storage class - SC 10/12

https://www.kvu.ch/de/themen/stoffe-und-produkte https://www.kvu.ch/fr/themes/substances-et-produits https://www.kvu.ch/it/temi/sostanze-e-prodotti

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am Arbeitsplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

Component	European Union	The United Kingdom	France	Belgium	Spain
Hydrochloric acid	TWA: 5 ppm 8 hr	STEL: 5 ppm 15 min	STEL / VLCT: 5 ppm.	TWA: 5 ppm 8 uren	STEL / VLA-EC: 10 ppm
	TWA: 8 mg/m ³ 8 hr	STEL: 8 mg/m ³ 15 min	restrictive limit	TWA: 8 mg/m ³ 8 uren	(15 minutos).
	STEL: 10 ppm 15 min	TWA: 1 ppm 8 hr	STEL / VLCT: 7.6	STEL: 10 ppm 15	STEL / VLA-EC: 15
	STEL: 15 mg/m ³ 15 min	TWA: 2 mg/m ³ 8 hr	mg/m ³ . restrictive limit	minuten	mg/m³ (15 minutos).
				STEL: 15 mg/m ³ 15	TWA / VLA-ED: 5 ppm
				minuten	(8 horas)
					TWA / VLA-ED: 7.6
					mg/m³ (8 horas)

Revision Date 13-Oct-2023

Component	Italy	Germany	Portugal	The Netherlands	Finland
Hydrochloric acid	TWA: 5 ppm 8 ore. Time	TWA: 2 ppm (8	STEL: 10 ppm 15	STEL: 15 mg/m ³ 15	STEL: 5 ppm 15
	Weighted Average	Stunden). AGW -	minutos	minuten	minuutteina
	TWA: 8 mg/m ³ 8 ore.	exposure factor 2	STEL: 15 mg/m ³ 15	TWA: 8 mg/m ³ 8 uren	STEL: 7.6 mg/m ³ 15
	Time Weighted Average		minutos		minuutteina
	STEL: 10 ppm 15	Stunden). AGW -	Ceiling: 2 ppm		
	minuti. Short-term	exposure factor 2	TWA: 5 ppm 8 horas		
	STEL: 15 mg/m ³ 15	TWA: 2 ppm (8	TWA: 8 mg/m ³ 8 horas		
	minuti. Short-term	Stunden). MAK			
		TWA: 3.0 mg/m³ (8			
		Stunden). MAK			
		Höhepunkt: 4 ppm			
	l	Höhepunkt: 6 mg/m ³			
C	Aatmia	Danmanla	Custonaniana	Delend	Mamuau
Component Hydrochloric acid	Austria MAK-KZGW: 10 ppm 15	Denmark STEL: 5 ppm 15	Switzerland	Poland STEL: 10 mg/m ³ 15	Norway Ceiling: 5 ppm
nydrochione acid	Minuten	minutter	STEL: 4 ppm 15 Minuten	minutach	Ceiling: 5 ppm Ceiling: 7 mg/m ³
	MAK-KZGW: 15 mg/m ³	STEL: 8 mg/m ³ 15	STEL: 6 mg/m ³ 15	TWA: 5 mg/m ³ 8	Celling. 7 mg/m
	15 Minuten	minutter	Minuten	godzinach	
	MAK-TMW: 5 ppm 8	mindte	TWA: 2 ppm 8 Stunden	godzinach	
	Stunden		TWA: 3 mg/m ³ 8		
	MAK-TMW: 8 mg/m ³ 8		Stunden		
	Stunden		Otania		
Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Hydrochloric acid	TWA: 5 ppm	TWA-GVI: 5 ppm 8	TWA: 8 mg/m ³ 8 hr. F	STEL: 10 ppm	TWA: 8 mg/m ³ 8
	TWA: 8.0 mg/m ³	satima.	TWA: 5 ppm 8 hr.	STEL: 15 mg/m ³	hodinách.
	STEL: 10 ppm	TWA-GVI: 8 mg/m ³ 8	STEL: 10 ppm 15 min	TWA: 5 ppm	Ceiling: 15 mg/m ³
	STEL: 15.0 mg/m ³	satima.	STEL: 15 mg/m ³ 15 min	TWA: 8 mg/m ³	
		STEL-KGVI: 10 ppm 15			
		minutama.			
		STEL-KGVI: 15 mg/m ³			
		15 minutama.			
Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Hydrochloric acid	TWA: 5 ppm 8 tundides.	TWA: 5 ppm 8 hr	STEL: 5 ppm	STEL: 16 mg/m ³ 15	STEL: 5 ppm
	TWA: 8 mg/m ³ 8	TWA: 8 mg/m ³ 8 hr	STEL: 7 mg/m ³	percekben. CK	STEL: 8 mg/m ³
	tundides.	STEL: 10 ppm 15 min	TWA: 5 ppm	TWA: 8 mg/m ³ 8	
	STEL: 10 ppm 15	STEL: 15 mg/m ³ 15 min	TWA: 7 mg/m ³	órában. AK	

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Hydrochloric acid	STEL: 10 ppm	TWA: 5 ppm IPRD	TWA: 5 ppm 8 Stunden	TWA: 5 ppm	TWA: 5 ppm 8 ore
-	STEL: 15 mg/m ³	TWA: 8 mg/m³ IPRD	TWA: 8 mg/m ³ 8	TWA: 8 mg/m ³	TWA: 8 mg/m ³ 8 ore
	TWA: 5 ppm	STEL: 10 ppm	Stunden	STEL: 10 ppm 15 minuti	STEL: 10 ppm 15
	TWA: 8 mg/m ³	STEL: 15 mg/m ³	STEL: 10 ppm 15	STEL: 15 mg/m ³ 15	minute
			Minuten	minuti	STEL: 15 mg/m ³ 15
			STEL: 15 mg/m ³ 15		minute
		I	Minuten	l l	

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Ethylenediaminetetra	MAC: 2 mg/m ³				
acetic acid					
Hydrochloric acid	MAC: 5 mg/m ³	Ceiling: 15 mg/m ³	TWA: 5 ppm 8 urah	Binding STEL: 4 ppm 15	TWA: 5 ppm 8 saat
	_	TWA: 5 ppm	anhydrous	minuter	TWA: 8 mg/m ³ 8 saat
		TWA: 8.0 mg/m ³	TWA: 8 mg/m ³ 8 urah	Binding STEL: 6 mg/m ³	STEL: 10 ppm 15
			anhydrous	15 minuter	dakika
			STEL: 10 ppm 15	TLV: 2 ppm 8 timmar.	STEL: 15 mg/m ³ 15
			minutah anhydrous	NGV	dakika
			STEL: 15 mg/m ³ 15	TLV: 3 mg/m ³ 8 timmar.	
			minutah anhydrous	NGV	

Biological limit values

minutites. STEL: 15 mg/m³ 15 minutites.

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific

Tris-EDTA, 1X Solution (pH 7.4)

Revision Date 13-Oct-2023

regulatory bodies

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
1,3-Propanediol,				DNEL = 166.7mg/kg
2-amino-2-(hydroxymethyl)-				bw/day
77-86-1 (<2)				-

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Ethylenediaminetetraacetic acid 60-00-4 (<1)	DNEL = 3mg/m ³		DNEL = 1.5mg/m ³	
Hydrochloric acid 7647-01-0 (<1)	DNEL = 15mg/m ³		DNEL = 8mg/m ³	
1,3-Propanediol, 2-amino-2-(hydroxymethyl)- 77-86-1 (<2)				DNEL = 117.5mg/m ³

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water	Water Intermittent	Microorganisms in	Soil (Agriculture)
		sediment		sewage treatment	
Ethylenediaminetetraacetic	PNEC = 2.2mg/L		PNEC = 1.2mg/L	PNEC = 43mg/L	PNEC = 0.72mg/kg
acid	-		_	-	soil dw
60-00-4 (<1)					
1,3-Propanediol,				PNEC = 300mg/L	
2-amino-2-(hydroxymethyl)				, and the second	
1 - 1					
77-86-1 (<2)					

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Ethylenediaminetetraacetic	PNEC = 0.22mg/L				
acid					
60-00-4 (<1)					

8.2. Exposure controls

Engineering Measures

None under normal use conditions.

Personal protective equipment

Eye Protection

Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Tris-EDTA, 1X Solution (pH 7.4)

Revision Date 13-Oct-2023

Hand Protection	Protectiv	ve gloves		
Glove material Natural rubber Nitrile rubber Neoprene PVC	Breakthrough time See manufacturers recommendations	Glove thickness	EU standard EN 374	Glove comments (minimum requirement)

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Inspect gloves before use, observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, gloves with care avoiding skin contamination.

No protective equipment is needed under normal use conditions. **Respiratory Protection**

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits

are exceeded or if irritation or other symptoms are experienced

Liquid

Recommended Filter type: Particle filter

Maintain adequate ventilation Small scale/Laboratory use

Environmental exposure controls No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Liquid

Colorless **Appearance** Odor Odorless

Odor Threshold No data available No data available Melting Point/Range **Softening Point** No data available **Boiling Point/Range** No data available Flammability (liquid) No data available Flammability (solid,gas) Not applicable

No data available **Explosion Limits**

Flash Point Not applicable Method - No information available

No data available **Autoignition Temperature Decomposition Temperature** No data available

pН 7.4-8.1

Viscosity No data available Water Solubility No information available

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Vapor Pressure No data available **Density / Specific Gravity** No data available

Bulk Density Not applicable Liquid Vapor Density No data available (Air = 1.0)

Particle characteristics Not applicable (liquid)

9.2. Other information

Revision Date 13-Oct-2023

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions No information available.

10.4. Conditions to avoid

Incompatible products. Excess heat.

10.5. Incompatible materials

Bases. Strong acids.

10.6. Hazardous decomposition products

Nitrogen oxides (NOx).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information No acute toxicity information is available for this product

(a) acute toxicity;

Oral Based on available data, the classification criteria are not met **Dermal** Based on available data, the classification criteria are not met Inhalation Based on available data, the classification criteria are not met

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylenediaminetetraacetic acid	4500 mg/kg (Rat)	-	1 mg/l (rat)
	>2000 mg/kg (Rat)		
Hydrochloric acid	238 - 277 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	1.68 mg/L (Rat) 1 h
1,3-Propanediol,	LD50 = 5900 mg/kg (Rat)	LD50 > 5000 mg/kg (Rat)	-
2-amino-2-(hydroxymethyl)-			
Water	-	-	-

No data available (b) skin corrosion/irritation;

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

No data available Respiratory No data available Skin

No data available (e) germ cell mutagenicity;

(f) carcinogenicity; No data available

Tris-EDTA, 1X Solution (pH 7.4)

Revision Date 13-Oct-2023

There are no known carcinogenic chemicals in this product

No data available (g) reproductive toxicity;

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

Other Adverse Effects The toxicological properties have not been fully investigated.

Symptoms / effects,both acute and No information available.

delaved

11.2. Information on other hazards

Assess endocrine disrupting properties for human health. This product does not contain any **Endocrine Disrupting Properties**

known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity **Ecotoxicity effects**

Component	Freshwater Fish	Water Flea	Freshwater Algae
Ethylenediaminetetraacetic acid	LC50: 34 - 62 mg/L, 96h static (Lepomis macrochirus) LC50: 44.2 - 76.5 mg/L, 96h static (Pimephales promelas)	EC50: = 113 mg/L, 48h Static (Daphnia magna)	EC50: = 1.01 mg/L, 72h (Desmodesmus subspicatus)
Hydrochloric acid	282 mg/L LC50 96 h Gambusia affinis mg/L LC50 48 h Leucscus idus	56mg/L EC50 72h Daphnia	-

Component	Microtox	M-Factor
Hydrochloric acid	-	

12.2. Persistence and degradability Not readily biodegradable

12.3. Bioaccumulative potential No information available

12.4. Mobility in soil

12.5. Results of PBT and vPvB No data available for assessment.

assessment

12.6. Endocrine disrupting

Tris-EDTA, 1X Solution (pH 7.4)

Revision Date 13-Oct-2023

properties

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects
Persistent Organic Pollutant
Ozone Depletion Potential

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused

Products

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to

ensure complete and accurate classification.

Contaminated Packaging Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use

empty containers.

European Waste Catalogue (EWC) According to the European Waste Catalog, Waste Codes are not product specific, but

application specific.

Other Information Waste codes should be assigned by the user based on the application for which the product

was used.

Switzerland - Waste Ordinance Disposal should be in accordance with applicable regional, national and local laws and

regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance,

ADWO) SR 814.600

https://www.fedlex.admin.ch/eli/cc/2015/891/en

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

ADR Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

IATA Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required.

Revision Date 13-Oct-2023

14.7. Maritime transport in bulk according to IMO instruments

Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Ethylenediaminetetraacetic acid	60-00-4	200-449-4	ı	1	X	X	KE-13648	X	X
Hydrochloric acid	7647-01-0	231-595-7	-	-	X	X	KE-20189	X	X
1,3-Propanediol,	77-86-1	201-064-4	-	-	X	X	KE-01403	X	Х
2-amino-2-(hydroxymethyl)-									
Water	7732-18-5	231-791-2	_	-	X	X	KE-35400	X	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Ethylenediaminetetraacetic acid	60-00-4	Х	ACTIVE	Х	-	Х	Х	Х
Hydrochloric acid	7647-01-0	Х	ACTIVE	Х	-	X	Х	Х
1,3-Propanediol,	77-86-1	Х	ACTIVE	Х	-	Х	Х	Х
2-amino-2-(hydroxymethyl)-								
Water	7732-18-5	Х	ACTIVE	X	-	Х	Х	Х

Legend: X - Listed '-' - Not Listed KECL - N

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Ethylenediaminetetraacetic acid	60-00-4	-	Use restricted. See item 75. (see link for restriction details)	-
Hydrochloric acid	7647-01-0	-	Use restricted. See item 75. (see link for restriction details)	-
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	77-86-1	-	-	-
Water	7732-18-5	-	-	-

REACH links

https://echa.europa.eu/substances-restricted-under-reach

Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Ethylenediaminetetraacetic acid	60-00-4	Not applicable	Not applicable
Hydrochloric acid	7647-01-0	25 tonne	250 tonne
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	77-86-1	Not applicable	Not applicable

Tris-EDTA, 1X Solution (pH 7.4)

Revision Date 13-Oct-2023

Water	7732-18-5	Not applicable	Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification

Water endangering class = 1 (self classification)

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Ethylenediaminetetraacetic acid	WGK2	
Hydrochloric acid	WGK1	
1,3-Propanediol,	WGK1	
2-amino-2-(hydroxymethyl)-		

Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Ethylenediaminetetraacetic acid	Prohibited and Restricted		
60-00-4 (<1)	Substances		
Hydrochloric acid	Prohibited and Restricted		
7647-01-0 (<1)	Substances		

15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

Legend

Tris-EDTA, 1X Solution (pH 7.4)

Revision Date 13-Oct-2023

CAS - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic

Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances Substances List **ENCS** - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration PBT - Persistent. Bioaccumulative. Toxic

TWA - Time Weighted Average

VOC - (volatile organic compound)

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from

Ships ATE - Acute Toxicity Estimate

BCF - Bioconcentration factor Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data **Health Hazards** Calculation method **Environmental hazards** Calculation method

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Creation Date 16-Nov-2010 **Revision Date** 13-Oct-2023 **Revision Summary** Not applicable.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006

For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and Preparations).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet