

TFD 4 - 010104



SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

1.1. Product identifier

Product name : TFD 4
Product code : 010104.

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

Foaming degreasing detergent.

1.3. Details of the supplier of the safety data sheet

Registered company name : FRANKLAB.
Address : 3 avenue des Frênes.78180.MONTIGNY LE BRETONNEUX.FRANCE.
Telephone : +33 1 39 44 93 40. Fax : +33 1 39 44 93 41.
contact@sterifrance.com
www.sterifrance.com

1.4. Emergency telephone number : +33 1 40 44 30 00.

Association/Organisation : INRS Paris.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Skin corrosion, Category 1A (Skin Corr. 1A, H314).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

Detergent mixture (see section 15).

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS05

Signal Word :

DANGER

Product identifiers :

EC 215-181-3 POTASSIUM HYDROXIDE

Additional labeling :

Hazard statements :

H314 Causes severe skin burns and eye damage.

Precautionary statements - Prevention :

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ ...

Precautionary statements - Response :

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor/...

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) \geq 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

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The mixture does not contain substances $\geq 0.1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures****Composition :**

Identification	(EC) 1272/2008	Note	%
CAS: 1310-58-3 EC: 215-181-3 REACH: 01-2119487136-33-xxxx POTASSIUM HYDROXIDE	GHS07, GHS05 Dgr Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318	[1]	2.5 \leq x % < 10
CAS: 60-00-4 EC: 200-449-4 EDETIC ACID	GHS07, GHS08 Wng Eye Irrit. 2, H319 Acute Tox. 4, H332 STOT RE 2, H373		2.5 \leq x % < 10
CAS: 7722-88-5 EC: 231-767-1 REACH: 01-2119489794-17-0001 TETRASODIUM PYROPHOSPHATE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Eye Dam. 1, H318	[1]	0 \leq x % < 2.5

Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 1310-58-3 EC: 215-181-3 REACH: 01-2119487136-33-xxxx POTASSIUM HYDROXIDE	Skin Corr. 1A: H314 $C \geq 5\%$ Skin Corr. 1B: H314 $2\% \leq C < 5\%$ Skin Irrit. 2: H315 $0.5\% \leq C < 2\%$ Eye Dam. 1: H318 $C \geq 2\%$ Eye Irrit. 2: H319 $0.5\% \leq C < 2\%$	oral: ATE = 333 mg/kg BW
CAS: 60-00-4 EC: 200-449-4 EDETIC ACID		oral: ATE = 4500 mg/kg BW
CAS: 7722-88-5 EC: 231-767-1 REACH: 01-2119489794-17-0001 TETRASODIUM PYROPHOSPHATE		inhalation: ATE = 5 mg/l (dust/mist) oral: ATE = 1624 mg/kg BW

Information on ingredients :

(Full text of H-phrases: see section 16)

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures**In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin :

Remove any soiled or splashed clothing immediately.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

Seek medical attention immediately, showing the label.

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

No data available.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

N/A

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)

- carbon dioxide (CO₂)

5.3. Advice for firefighters

Use a self-sufficient respiratory device and a full protective jumpsuit.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Neutralise with an acidic decontaminant.

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

Keep the container tightly closed

Storage

N/A

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Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

Professional use only. Refere to section 1 for prouct use.

Refer to section 1 for the use of the product.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Occupational exposure limits :**

- France (INRS - Outils 65 / 2021-1849, 2021-1763, decree of 09/12/2021) :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-ppm :	VLE-mg/m ³ :	Notes :	TMP No :
1310-58-3	-	-	-	2	-	-
7722-88-5	-	5	-	-	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1310-58-3		2 mg/m ³			
7722-88-5	5 mg/m ³				

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

TETRASODIUM PYROPHOSPHATE (CAS: 7722-88-5)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Inhalation.
Long term systemic effects.
44.08 mg of substance/m³

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Inhalation.
Long term systemic effects.
10.87 mg of substance/m³

EDETIC ACID (CAS: 60-00-4)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Inhalation.
Long term systemic effects.
1.5 mg of substance/m³

POTASSIUM HYDROXIDE (CAS: 1310-58-3)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Inhalation.
Long term local effects.
1 mg of substance/m³

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Inhalation.
Long term local effects.
1 mg of substance/m³

Predicted no effect concentration (PNEC):

EDETIC ACID (CAS: 60-00-4)

Environmental compartment:
PNEC :

Soil.
0.72 mg/kg

Environmental compartment:
PNEC :

Fresh water.
2.2 mg/l

Environmental compartment:
PNEC :

Sea water.
0.22 mg/l

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Environmental compartment: Intermittent waste water.
PNEC : 1.2 mg/l

8.2. Exposure controls**Personal protection measures, such as personal protective equipment**

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

N/A

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Natural latex

- PVC (polyvinyl chloride)

N/A

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Wear suitable protective clothing, in particular overalls and boots. These items must be kept in good condition and cleaned after use.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties****Physical state**

Physical state : Fluid liquid.

Colour

N/A

Odour

Odour threshold : Not stated.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not relevant.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

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Flash point interval : Not relevant.

Auto-ignition temperature

Self-ignition temperature : Not relevant.

Decomposition temperature

Decomposition point/decomposition range : Not relevant.

pH

pH (aqueous solution) : Not stated.

pH : 13.00 .
Strongly basic.**Kinematic viscosity**

Viscosity : Not stated.

Solubility

Water solubility : Soluble.

Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Below 110 kPa (1.10 bar).

Density and/or relative density

Density : > 1

Relative vapour density

Vapour density : Not stated.

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY**10.1. Reactivity**

No hazardous reaction if handling requirements and storage are respected.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid :

- frost

N/A

10.5. Incompatible materials

N/A

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)

- carbon dioxide (CO₂)**SECTION 11 : TOXICOLOGICAL INFORMATION****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure for up to three minutes.

Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

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11.1.1. Substances

Acute toxicity :

TETRASODIUM PYROPHOSPHATE (CAS: 7722-88-5)

Oral route : LD50 = 1624 mg/kg
Species : Rat
OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)

Dermal route : LD50 > 2000 mg/kg
Species : Rabbit

Inhalation route (Dusts/mist) : LC50 = 5 mg/m3

EDETIC ACID (CAS: 60-00-4)

Oral route : LD50 = 4500 mg/kg
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

POTASSIUM HYDROXIDE (CAS: 1310-58-3)

Oral route : LD50 = 333 mg/kg
OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)

Germ cell mutagenicity :

EDETIC ACID (CAS: 60-00-4)

Mutagenesis (in vivo) : Negative.
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Species : Others
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Ames test (in vitro) : Negative.

Carcinogenicity :

EDETIC ACID (CAS: 60-00-4)

Carcinogenicity Test : Negative.
No carcinogenic effect.
Species : Rat

Specific target organ systemic toxicity - repeated exposure :

EDETIC ACID (CAS: 60-00-4)

Oral route : C = 500 mg/kg bodyweight/day
Duration of exposure : 90 days

11.1.2. Mixture

Skin corrosion/skin irritation :

N/A

Serious damage to eyes/eye irritation :

N/A

11.2. Information on other hazards

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

TETRASODIUM PYROPHOSPHATE (CAS: 7722-88-5)

Fish toxicity : LC50 = 100 mg/l
Species : Trutta iridea
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

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Crustacean toxicity : EC50 > 100 mg/l
Species : Daphnia magna
Duration of exposure : 48 h
EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)

Algae toxicity : ECr50 = 100 mg/l
Species : Desmodesmus subspicatus
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

POTASSIUM HYDROXIDE (CAS: 1310-58-3)
Fish toxicity : LC50 = 80 mg/l
Species : Gambusia affinis
Duration of exposure : 96 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

TETRASODIUM PYROPHOSPHATE (CAS: 7722-88-5)
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

POTASSIUM HYDROXIDE (CAS: 1310-58-3)
Biodegradability : Non-rapidly degradable.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 [40-20] - ICAO/IATA 2022 [63]).

14.1. UN number or ID number

1814

14.2. UN proper shipping name

UN1814=POTASSIUM HYDROXIDE SOLUTION

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14.3. Transport hazard class(es)

- Classification :



8

14.4. Packing group

III

14.5. Environmental hazards

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14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	8	C5	III	8	80	5 L	-	E1	3	E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	8	-	III	5 L	F-A. S-B	223	E1	Category A	SGG18 SG35

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	8	-	III	852	5 L	856	60 L	A3 A803	E1
	8	-	III	Y841	1 L	-	-	A3 A803	E1

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****- Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

- Container information:

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): <https://echa.europa.eu/substances-restricted-under-reach>.

- Particular provisions :

No data available.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure .

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Abbreviations :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.
LC50 : The concentration of a test substance resulting in 50% lethality in a given period.
EC50 : The effective concentration of substance that causes 50% of the maximum response.
ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.
ATE : Acute Toxicity Estimate
BW : Body Weight
DNEL : Derived No-Effect Level
PNEC : Predicted No-Effect Concentration
STEL : Short-term exposure limit
TWA : Time Weighted Averages
TMP : French Occupational Illness table
TLV : Threshold Limit Value (exposure)
AEV : Average Exposure Value.
ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
GHS05 : Corrosion
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.