#### PRESI S.A.S

#### REACTIF DE KELLER - 17238-17239

## 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: REACTIF DE KELLER

Product code: 17238-17239. UFI: XN50-70T0-V00F-UXN5

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

Etching reagent

## 1.3. Details of the supplier of the safety data sheet

Registered company name: PRESI S.A.S.

Address: 11 Rue du vercors.38320.EYBENS.France.

Telephone: +33 (0)4.76.72.00.21. Fax: +33 (0)4.76.72.05.84.

presi@presi.com www.presi.com

## 1.4. Emergency telephone number: +33 (0)1.45.42.59.59.

Association/Organisation: INRS / ORFILA http://www.centres-antipoison.net.

## **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1. Classification of the substance or mixture

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

Acute oral toxicity, Category 4 (Acute Tox. 4, H302).

Acute dermal toxicity, Category 4 (Acute Tox. 4, H312).

Skin irritation, Category 2 (Skin Irrit. 2, H315).

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

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

Hazard pictograms:





GHS05 GHS07

Signal Word : DANGER

Product identifiers:

EC 231-714-2 NITRIC ACID [C  $\leq$  70 %] EC 231-634-8 HYDROFLUORIC ACID

Hazard statements:

H302 + H312 Harmful if swallowed or in contact with skin.

H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary statements - Prevention:

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

#### REACTIF DE KELLER - 17238-17239

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

Precautionary statements - Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water/...

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/...

P321 Specific treatment (see ... on this label).

P330 Rinse mouth.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Precautionary statements - Disposal:

P501 Dispose of the contents/container in a safe manner and in accordance with local, regional, or

national regulations.

#### 2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 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.

The mixture does not contain substances= 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:

Composition :			
Identification	Classification (EC) 1272/2008	Note	%
CAS: 7697-37-2	GHS06, GHS05, GHS03	В	$2.5 \le x \% < 10$
EC: 231-714-2	Dgr	[1]	
REACH: 01-2119487297-23-0000	Ox. Liq. 3, H272		
	Skin Corr. 1A, H314		
NITRIC ACID [C <= 70 %]	Acute Tox. 3, H331		
	EUH:071		
CAS: 7664-39-3	GHS06, GHS05	В	0 <= x % < 1
EC: 231-634-8	Dgr	[1]	
REACH: 01-2119458860-33-0000	Acute Tox. 2, H300		
	Acute Tox. 1, H310		
HYDROFLUORIC ACID	Skin Corr. 1A, H314		
	Acute Tox. 2, H330		

## Specific concentration limits:

Specific concentration filmes.		
Identification	Specific concentration limits	ATE
CAS: 7697-37-2	Ox. Liq. 3: H272 C>= 65%	inhalation: ATE = 2.65 mg/l 4h
EC: 231-714-2	Skin Corr. 1A: H314 C>= 20%	
REACH: 01-2119487297-23-0000	Skin Corr. 1B: H314 5% <= C < 20%	
	Skin Corr. 1C: H314 0% <= C < 5%	
NITRIC ACID [C <= 70 %]	Skin Irrit. 2: H315 1% <= C < 0%	
CAS: 7664-39-3	Skin Corr. 1A: H314 C>= 7%	
EC: 231-634-8	Skin Corr. 1B: H314 1% <= C < 7%	
REACH: 01-2119458860-33-0000	Skin Irrit. 2: H315 1% <= C < 1%	
	Eye Dam. 1: H318 C>= 1%	
HYDROFLUORIC ACID	Eye Irrit. 2: H319 0.1% <= C < 1%	

## Information on ingredients:

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

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

## REACTIF DE KELLER - 17238-17239

#### **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 contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Remove any soiled or splashed clothing immediately.

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

If the contaminated aera 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.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water, administer activated medical charcoal and consult a doctor.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

#### 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:

- sprayed water or water mist
- foam
- carbon dioxide (CO2)
- powder

## 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:

- nitrogen oxide (NO)
- nitrogen dioxide (NO2)
- hydrogen chloride (HCl)
- phosgene (CCl2O)
- chlorine (Cl2)
- fluorine (F2)

### 5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

## REACTIF DE KELLER - 17238-17239

#### **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 alkaline decontaminant, such as an aqueous solution of sodium carbonate or similar.

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.

Do not handle in an environment in which particules can pollute the product in its container. Any pollution can lead to a violent reaction of the mixture.

## 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.

Avoid eye contact with this mixture at all times.

## 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

No data available.

#### Storage

Keep away from food and drink, including those for animals.

#### **Packaging**

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

Suitable packaging materials:

- Polyethylene

Unsuitable packaging materials:

- Glass

## REACTIF DE KELLER - 17238-17239

## 7.3. Specific end use(s)

No data available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1. Control parameters

## Occupational exposure limits:

- European Union (2022/431	2019/1831	2017/2398	2017/164	2009/161	2006/15/CE	2000/39/CE	98/24/CE) ·

CAS	VME-mg/m3:	VME-ppm:	VLE-mg/m3:	VLE-ppm:	Notes:
7697-37-2	-	-	2.6	1	-
7664-39-3	1.5	1.8	2.5	3	-

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
7697-37-2	2 ppm	4 ppm			
7664-39-3	0.5 ppm		2 ppm	Skin; BEI	

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

- Germany - 116 w (Brant - 1105 700, 02/2022).							
CAS	VME:	VME:	Excess	Notes			
7697-37-2		1 ppm					
		2.6 mg/m3					
7664-39-3		1 ppm		2(I)			
		0.83  mg/m3					

- Canada / Ontario (Control of exposure to biological or chemical agents, regulation 491/2009):

Culluda / Olliullo (	control of expo	suite to bibliogic	ai oi chemineai a	genus, regulatio	11 171/2007).
CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
7664-39-3	-	-	3 ppm	-	-

- Canada / Quebec (Regulations on occupational health and safety) :

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
7697-37-2	2 ppm	4 ppm			
	5.2 mg/m3	10 mg/m3			
7664-39-3		3 ppm		RP	
		2.6 mg/m3			

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

CAS	VME-ppm:	VME-mg/m3:	VLE-ppm:	VLE-mg/m3:	Notes:	TMP No:
7697-37-2	-	-	1	2.6	-	-
7664-39-3	1.8	1.5	3	2.5	-	32

- Japan (JSOH, Recommendation of occupational exposure limits 2021-2022):

supun (35011; Recommendation of occupational exposure mints 2021 2022):						
CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:	
7697-37-2	2 ppm					
	5.2 mg/m3					
7664-39-3	3 ppm					
	2.5  mg/m3					

- Switzerland (Suva 2021):

CAS	VME	VLE	Valeur plafond Notations
7697-37-2	2 ppm	2 ppm	
	5 mg/m3	5 mg/m3	
7664-39-3	1 ppm	2 ppm	
	0.83  mg/m3	1.66 mg/m3	

- USA / NIOSH IDLH (National Institute for Occupational Safety and Health, Immediately Dangerous to Life or Health Concentrations) :

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
7697-37-2	2 ppm	4 ppm			
	5 mg/m3	10 mg/m3			
7664-39-3	3 ppm		6 ppm	15 minute	
	2.5  mg/m3		5 mgm/3		



## PRESI S.A.S

#### REACTIF DE KELLER - 17238-17239

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

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:	
7697-37-2		1 ppm				
		2.6 mg/m3				
7664-39-3	1.8 ppm	3 ppm				
	1.5 mg/m3	2.5 mg/m3				

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

HYDROFLUORIC ACID (CAS: 7664-39-3)

Final use: Workers. Exposure method: Inhalation.

Potential health effects: Long term systemic effects. DNEL: 1.5 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Short term systemic effects. DNEL: 2.5 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Short term local effects. DNEL: 2.5 mg of substance/m3

Final use: Man exposed via the environment.

Exposure method: Ingestion.

Potential health effects: Long term systemic effects. DNEL: 0.01 mg/kg body weight/day

Exposure method: Ingestion.

Potential health effects: Short term systemic effects. DNEL: 0.01 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Long term systemic effects. DNEL: 0.03 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Short term systemic effects. DNEL: 0.03 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Long term local effects. 0.2 mg of substance/m3 DNEL:

Exposure method: Inhalation.

Potential health effects: Short term local effects. DNEL: 1.25 mg of substance/m3

NITRIC ACID [C <= 70 %] (CAS: 7697-37-2)

Final use: Workers. Exposure method: Inhalation.

Potential health effects: Short term local effects. DNEL: 2.6 mg of substance/m3

Exposure method: Inhalation.

#### REACTIF DE KELLER - 17238-17239

Potential health effects: Long term local effects.

DNEL: 2.6 mg of substance/m3

Final use: Man exposed via the environment.

Exposure method: Inhalation.

Potential health effects: Short term local effects.

DNEL: 1.3 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Long term local effects.

DNEL: 1.3 mg of substance/m3

#### Predicted no effect concentration (PNEC):

HYDROFLUORIC ACID (CAS: 7664-39-3)

Environmental compartment: Soil.
PNEC: 11 mg/kg

Environmental compartment: Fresh water. PNEC: 0.9 mg/l

Environmental compartment: Sea water. PNEC: 0.9 mg/l

Environmental compartment: Waste water treatment plant.

PNEC: 51 mg/l

### 8.2. Exposure controls

## Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE):





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.

#### - 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.



#### REACTIF DE KELLER - 17238-17239

Type of gloves recommended:

- Natural latex
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)

#### - 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.

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

Colorless to pale yellow

Not stated. Odour threshold:

Melting point

Melting point/melting range: Not specified.

Freezing point

Freezing point / Freezing range: Not stated.

Boiling point or initial boiling point and boiling range

Not specified. Boiling point/boiling range:

**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.

Flash point

Not relevant. Flash point interval:

Auto-ignition temperature

Self-ignition temperature: Not specified.

**Decomposition temperature** 

Decomposition point/decomposition range: Not specified.

рH

pH: Not stated.

Strongly acidic.

pH (aqueous solution): 1.00

Kinematic viscosity

Not stated. Viscosity:

**Solubility** 

Water solubility: Soluble.



#### REACTIF DE KELLER - 17238-17239

Fat solubility: Not stated.

Partition coefficient n-octanol/water (log value)

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

Vapour pressure

Vapour pressure (50°C): Not relevant.

Density and/or relative density

Density: > 1

Relative vapour density

Vapour density: Not stated.

Particle characteristics

The mixture does not contain nanoforms.

9.2. Other information

VOC(g/l):

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 data available.

#### 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

## 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

The thermal decomposition may release/form:

- nitrogen oxide (NO)
- nitrogen dioxide (NO2)
- hydrogen chloride (HCl)
- phosgene (CCl2O)
- chlorine (Cl2)
- fluorine (F2)

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

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

Harmful if swallowed.

Harmful in contact with skin.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.



#### REACTIF DE KELLER - 17238-17239

#### 11.1.1. Substances

#### Acute toxicity:

NITRIC ACID [C <= 70 %] (CAS: 7697-37-2)

Inhalation route (n/a):

LC50 = 2.65 mg/l

Duration of exposure: 4 h

#### 11.1.2. Mixture

No toxicological data available for the mixture.

#### 11.2. Information on other hazards

#### **SECTION 12: ECOLOGICAL INFORMATION**

#### 12.1. Toxicity

#### **12.1.2.** Mixtures

No aquatic toxicity data available for the mixture.

#### 12.2. Persistence and degradability

#### 12.2.1. Substances

NITRIC ACID [C <= 70 %] (CAS: 7697-37-2) Biodegradability:

no degradability data is available, the substance is considered as not degrading quickly.

#### 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.

## German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws):

WGK 1: Slightly hazardous for water.

## 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, 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.

## REACTIF DE KELLER - 17238-17239

#### **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 2023 - IMDG 2022 [41-22] - ICAO/IATA 2023 [64]).

#### 14.1. UN number or ID number

1760

## 14.2. UN proper shipping name

UN1760=CORROSIVE LIQUID, N.O.S. (nitric acid [c <= 70 %], hydrofluoric acid)

## 14.3. Transport hazard class(es)

- Classification:



#### 14.4. Packing group

#### 14.5. Environmental hazards

#### 14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	8	C9	III	8	80	5 L	274	E1	3	Е
										_
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation	
	8	-	III	5 L	F-A. S-B	223?274	E1	Category A SW2	-	
	•	•			•	•		•	•	_
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:**

No data available.

## Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

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.

## **Explosives precursors:**

The mixture contains at least one substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors:

- Nitric acid (CAS 7697-37-2)

#### REACTIF DE KELLER - 17238-17239

## Particular provisions:

No data available.

#### German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws):

WGK 1: Slightly hazardous for water.

#### 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:

H272	May intensify fire; oxidiser.
H300	Fatal if swallowed.
H310	Fatal in contact with skin

H314 Causes severe skin burns and eye damage.

H330 Fatal if inhaled. H331 Toxic if inhaled.

EUH071 Corrosive to the respiratory tract.

#### Abbreviations and acronyms:

LC50: The concentration of a test substance resulting in 50% lethality in a given period. REACH: Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate DNEL : Derived No-Effect Level

PNEC: Predicted No-Effect Concentration

UFI : Unique formulation identifier. 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.

WGK: Wassergefahrdungsklasse (Water Hazard Class).

GHS05 : Corrosion

GHS07: Exclamation mark

PBT: Persistent, bioaccumulable and toxic. vPvB: Very persistent, very bioaccumulable. SVHC: Substances of very high concern.