

according to Regulation (EC) No. 1907/2006

Creation Date 14-Dec-2009 Revision Date 09-Feb-2024 Revision Number 9

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

#### 1.1. Product identifier

Product Description: <u>Acrylamide Solution, 40%</u>

Cat No. : BP1402-1

Synonyms 2-Propenamide.; Acrylic amide; Ethylenecarboxamide

Molecular Formula C3 H 5N O

#### 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,

Belgium

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

ACRBP1402

#### CLP Classification - Regulation (EC) No 1272/2008

#### **Physical hazards**

Based on available data, the classification criteria are not met

#### **Health hazards**

Category 4 (H302) Acute oral toxicity Skin Corrosion/Irritation Category 2 (H315) Serious Eye Damage/Eye Irritation Category 2 (H319) Skin Sensitization Category 1 (H317) Germ Cell Mutagenicity Category 1B (H340) Carcinogenicity Category 1B (H350) Reproductive Toxicity Category 2 (H361f) Specific target organ toxicity - (repeated exposure) Category 1 (H372)

#### **Environmental hazards**

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

#### 2.2. Label elements



#### Signal Word

#### **Danger**

#### **Hazard Statements**

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H340 - May cause genetic defects

H350 - May cause cancer

H361f - Suspected of damaging fertility

H372 - Causes damage to organs through prolonged or repeated exposure

#### **Precautionary Statements**

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P312 - Call a POISON CENTER or doctor if you feel unwell

P302 + P352 - IF ON SKIN: Wash with plenty of soap and 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

P280 - Wear protective gloves/protective clothing/eye protection/face protection

## Additional EU labelling

Restricted to professional users

#### 2.3. Other hazards

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Toxic to terrestrial vertebrates

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
Water	7732-18-5	231-791-2	60	-
Acrylamide	79-06-1	EEC No. 201-173-7	40	Acute Tox. 3 (H301) Acute Tox. 4 (H312) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Acute Tox. 4 (H332) Muta. 1B (H340) Carc. 1B (H350) Repr. 2 (H361f) STOT RE 1 (H372)

Full text of Hazard Statements: see section 16

## **SECTION 4: FIRST AID MEASURES**

## 4.1. Description of first aid measures

**General Advice** Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

**Eve Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In

the case of contact with eyes, rinse immediately with plenty of water and seek medical

advice.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately.

Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth Inhalation

> method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Immediate medical attention is required.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

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

May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

#### 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**

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

#### Extinguishing media which must not be used for safety reasons

No information available.

#### 5.2. Special hazards arising from the substance or mixture

Do not allow evaporation to dryness. Risk of ignition. Decomposes violently at elevated temperatures. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

#### **Hazardous Combustion Products**

Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Ammonia, Hydrogen.

#### 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. Thermal decomposition can lead to release of irritating gases and vapors.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

#### 6.2. Environmental precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

### 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. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

#### **Hygiene Measures**

When using do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

## 7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat. Protect from sunlight. Keep refrigerated. Keep container tightly closed in a dry and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)

Storage Class/LGK 6.1D

Switzerland - Storage of hazardous substances

Storage class - SC 6.1

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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): **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. 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 **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
Acrylamide	TWA: 0.1 mg/m <sup>3</sup> (8h)	STEL: 0.3 mg/m <sup>3</sup> 15 min	TWA / VME: 0.1 mg/m <sup>3</sup>	TWA: 0.03 mg/m <sup>3</sup> 8	TWA / VLA-ED: 0.03
	Skin	TWA: 0.1 mg/m <sup>3</sup> 8 hr	(8 heures).	uren	mg/m³ (8 horas)
		Carc.	Peau	Huid	Piel
		Skin			
Component	Italy	Germany	Portugal	The Netherlands	Finland
Acrylamide	TWA: 0.1 mg/m <sup>3</sup> 8 ore.	Haut	TWA: 0.03 mg/m <sup>3</sup> 8	huid	TWA: 0.03 mg/m <sup>3</sup> 8
	Time Weighted Average		horas	TWA: 0.1 mg/m <sup>3</sup> 8 uren	tunteina
	Pelle		Pele		TWA: 0.1 mg/m <sup>3</sup> 8
					tunteina
					lho
Component	Austria	Denmark	Switzerland	Poland	Norway
Acrylamide	TRK-KZGW: 0.24	TWA: 0.03 mg/m <sup>3</sup> 8	Haut/Peau	TWA: 0.07 mg/m <sup>3</sup> 8	TWA: 0.03 mg/m <sup>3</sup> 8
	mg/m <sup>3</sup> 15 Minuten	timer	TWA: 0.03 mg/m <sup>3</sup> 8	godzinach	timer
	TRK-KZGW: 0.12	STEL: 0.06 mg/m <sup>3</sup> 15	Stunden		STEL: 0.09 mg/m <sup>3</sup> 15
	mg/m <sup>3</sup> 15 Minuten	minutter			minutter. value
	Haut	Hud			calculated
	TRK-TMW: 0.06 mg/m <sup>3</sup>				Hud
	TRK-TMW: 0.03 mg/m <sup>3</sup>				
Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Acrylamide	TWA: 0.1 mg/m <sup>3</sup>	kože	TWA: 0.1 mg/m <sup>3</sup> 8 hr.	Skin-potential for	TWA: 0.1 mg/m <sup>3</sup> 8
•	Skin notation	TIMA CIVIL 0.4 mg/m3.0	STEL: 0.3 mg/m3 15 min	cutaneous absorption	hodinách.

L	Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
I	Acrylamide	TWA: 0.1 mg/m <sup>3</sup>	kože	TWA: 0.1 mg/m <sup>3</sup> 8 hr.	Skin-potential for	TWA: 0.1 mg/m <sup>3</sup> 8
	•	Skin notation	TWA-GVI: 0.1 mg/m <sup>3</sup> 8	STEL: 0.3 mg/m <sup>3</sup> 15 min	cutaneous absorption	hodinách.
-			satima.	Skin	TWA: 0.1 mg/m <sup>3</sup>	Potential for cutaneous
					•	absorption
L						absorption

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Acrylamide	Nahk		skin - potential for	TWA: 0.1 mg/m <sup>3</sup> 8	TWA: 0.03 mg/m <sup>3</sup> 8
	TWA: 0.03 mg/m <sup>3</sup> 8		cutaneous absorption	órában. AK	klukkustundum.
	tundides.		TWA: 0.1 mg/m <sup>3</sup>	lehetséges borön	Skin notation
	STEL: 0.1 mg/m <sup>3</sup> 15			keresztüli felszívódás	Ceiling: 0.06 mg/m <sup>3</sup>
	minutites.				

	Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Γ	Acrylamide	skin - potential for	TWA: 0.03 mg/m <sup>3</sup> IPRD			Skin notation
-	•	cutaneous exposure	Oda			TWA: 0.03 mg/m <sup>3</sup> 8 ore
-		TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.1 mg/m <sup>3</sup>			

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Acrylamide	TWA: 0.05 mg/m <sup>3</sup> 1766	TWA: 0.03 mg/m <sup>3</sup> 8	TWA: 0.1 mg/m <sup>3</sup> 8 urah	Binding STEL: 0.1	
	Skin notation	hodinách	Koža	mg/m <sup>3</sup> 15 minuter	
	MAC: 0.2 mg/m <sup>3</sup>	Potential for cutaneous		TLV: 0.03 mg/m <sup>3</sup> 8	
		absorption		timmar. NGV	
		STEL: 0.15 mg/m <sup>3</sup> 15		Hud	
		minútach			

#### **Biological limit values**

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

No information available

#### **Predicted No Effect Concentration (PNEC)**

No information available.

#### 8.2. Exposure controls

#### **Engineering Measures**

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

## Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	> 480 minutes	0.38 -0.56 mm	EN 374	As tested under EN374-3 Determination of
Neoprene	> 480 minutes	mm	Level 6	Resistance to Permeation by Chemicals
PVC	> 480 minutes			-
Butyl rubber	> 480 minutes	0.7 mm		
Viton (R)	> 480 minutes	0.7mm		

Skin and body protection Long sleeved clothing.

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.

Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard
	EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if
	exposure limits are exceeded or if irritation or other symptoms are experienced.
	To protect the wearer, respiratory protective equipment must be the correct fit and be used
	and maintained properly

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 **Recommended Filter type:** Particulates filter conforming to EN 143

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure

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limits are exceeded or if irritation or other symptoms are experienced.

Recommended half mask:- Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted

Prevent product from entering drains. **Environmental exposure controls** 

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

## 9.1. Information on basic physical and chemical properties

**Physical State** Liquid

**Appearance** Colorless Odor Odorless

No data available **Odor Threshold** Melting Point/Range No data available **Softening Point** No data available **Boiling Point/Range** 125 °C / 257 °F

@ 25 mmHg Flammability (liquid) No data available

Flammability (solid, gas) Not applicable

Liquid No data available

**Explosion Limits** 

**Flash Point** Not applicable Method - No information available

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

Hq 6 - 7

Viscosity No data available

**Water Solubility** Soluble

No information available Solubility in other solvents

Partition Coefficient (n-octanol/water)

log Pow Component Acrylamide -1.24

**Vapor Pressure** .007 mmHg @ 25 °C

**Density / Specific Gravity** 1.122

**Bulk Density** Not applicable Liquid **Vapor Density** 2.45 (Air = 1.0)(Air = 1.0)

Particle characteristics Not applicable (liquid)

9.2. Other information

**Molecular Formula** C3 H 5N O **Molecular Weight** 71.08

**Evaporation Rate** No information available

## **SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity Yes

10.2. Chemical stability

Hazardous polymerization may occur. Do not allow evaporation to dryness. Light sensitive.

Air sensitive.

10.3. Possibility of hazardous reactions

**Hazardous Polymerization** Hazardous polymerization may occur. **Hazardous Reactions** None under normal processing.

10.4. Conditions to avoid

Incompatible products. Exposure to light. Excess heat. Exposure to air.

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10.5. Incompatible materials

Strong oxidizing agents. Acids. Bases. Reducing Agent. Metals. Peroxides.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NOx). Ammonia.

Hydrogen.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

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

#### **Product Information**

(a) acute toxicity;

Oral Category 4 ATE = 310 mg/kg

**Dermal** Based on ATE data, the classification criteria are not met

ATE = 2852 mg/kg

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

#### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Acrylamide	124 mg/kg ( Rat )	1141 mg/kg (Rabbit)	-

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;

**Respiratory**Skin
No data available Category 1

No information available

(e) germ cell mutagenicity; Category 1B

Mutagenic effects have occurred in humans

(f) carcinogenicity; Category 1B

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	EU	UK	Germany	IARC
Acrylamide	Carc Cat. 1B		Cat. 2	Group 2A

(g) reproductive toxicity; Category 2

Reproductive Effects Developmental Effects Teratogenicity Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental effects have occurred in experimental animals. Teratogenic effects have occurred in experimental animals.

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; Category 1

Target Organs Central nervous system (CNS), Liver, Kidney, Blood, Reproductive System, Peripheral

Nervous System (PNS).

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(j) aspiration hazard; No data available

**Other Adverse Effects** Tumorigenic effects have been reported in experimental animals.

delayed

Symptoms / effects, both acute and Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

11.2. Information on other hazards

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

known or suspected endocrine disruptors.

## **SECTION 12: ECOLOGICAL INFORMATION**

12.1. Toxicity

Contains a substance which is:. Harmful to aquatic organisms. The product contains **Ecotoxicity effects** 

following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Acrylamide	124 mg/L LC50 96 h	EC50: = 98 mg/L, 48h Flow	
	74-150 mg/L LC50 96 h	through (Daphnia magna)	
	81-150 mg/L LC50 96 h	EC50: = 98 mg/L, 48h (Daphnia	
	103-115 mg/L LC50 96 h	magna)	
	137-191 mg/L LC50 96 h		

12.2. Persistence and degradability Not applicable for mixtures

**Persistence** Miscible with water, Persistence is unlikely, based on information available, Soluble in

Degradation in sewage

treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste

water treatment plants.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Acrylamide	-1.24	No data available

The product is water soluble, and may spread in water systems . Will likely be mobile in the 12.4. Mobility in soil

environment due to its water solubility. Highly mobile in soils

12.5. Results of PBT and vPvB

assessment

No data available for assessment.

12.6. Endocrine disrupting

properties

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

12.7. Other adverse effects

**Persistent Organic Pollutant** This product does not contain any known or suspected substance This product does not contain any known or suspected substance **Ozone Depletion Potential** 

## **SECTION 13: DISPOSAL CONSIDERATIONS**

#### 13.1. Waste treatment methods

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Waste from Residues/Unused

**Products** 

Waste is classified as hazardous. Dispose of in accordance with the European Directives

on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging** Dispose of this container to hazardous or special waste collection point.

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

application specific.

Other Information Do not flush to sewer. Waste codes should be assigned by the user based on the

application for which the product was used. Do not empty into drains.

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

<u>IATA</u> 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.

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
Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-
Acrylamide	79-06-1	201-173-7	-	-	X	X	KE-29374	Х	X

Component	CAS No	TSCA	TSCA Inventory	DSL	NDSL	AICS	NZIoC	PICCS

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			notification - Active-Inactive					
Water	7732-18-5	X	ACTIVE	X	-	X	X	X
Acrylamide	79-06-1	X	ACTIVE	Х	-	Х	X	X

Legend: X - Listed '-' - Not Listed 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)
Water	7732-18-5	-	-	-
Acrylamide	79-06-1	-	Use restricted. See item 28. (see link for restriction details) Use restricted. See item 29. (see link for restriction details) Use restricted. See item 60. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)	SVHC Candidate list - 201-173-7 - Carcinogenic, Article 57a;Mutagenic, Article 57b

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

#### **REACH links**

https://echa.europa.eu/authorisation-list https://echa.europa.eu/substances-restricted-under-reach https://echa.europa.eu/candidate-list-table

#### Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) -	Seveso III Directive (2012/18/EC) -	
-		Qualifying Quantities for Major Accident	Qualifying Quantities for Safety Report	
		Notification	Requirements	
Water	7732-18-5	Not applicable	Not applicable	
Acrylamide	79-06-1	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

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

#### **National Regulations**

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

#### **WGK Classification**

Water endangering class = 3 (self classification)

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Acrylamide	WGK3	Krebserzeugende Stoffe - Class II : 0.5 mg/m <sup>3</sup>
-		(Massenkonzentration)

#### **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	
Acrylamide	Prohibited and Restricted			
79-06-1 ( 40 )	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

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H340 - May cause genetic defects

H350 - May cause cancer

H361f - Suspected of damaging fertility

H372 - Causes damage to organs through prolonged or repeated exposure

H301 - Toxic if swallowed

H312 - Harmful in contact with skin

H332 - Harmful if inhaled

#### Legend

**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

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

**BCF** - Bioconcentration factor

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

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (volatile organic compound)

Acrylamide Solution, 40% Revision Date 09-Feb-2024

#### 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
Health Hazards
Calculation method
Environmental hazards
Cn basis of test data
Calculation method

#### **Training Advice**

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

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Creation Date14-Dec-2009Revision Date09-Feb-2024Revision SummaryNot 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**