

according to Regulation (EC) No. 1907/2006

Revision Date 10-Sep-2024 Revision Number 4

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

1.1. Product identifier

Product Description: Beryllium foil

Cat No. : 41642

 Index No
 004-001-00-7

 CAS No
 7440-41-7

 EC No
 231-150-7

 Molecular Formula
 Be

 REACH registration number

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

Thermo Fisher (Kandel) GmbH

Erlenbachweg 2, 76870 Kandel, Germany

Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300

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

Tel: +41 (0) 56 618 41 11

https://www.fishersci.ch/ch/en/customer-help-

support/forms/email-us.html

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

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CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Based on available data, the classification criteria are not met

Health hazards

Acute oral toxicity Category 3 (H301) Acute Inhalation Toxicity - Dusts and Mists Category 2 (H330) Skin Corrosion/Irritation Category 2 (H315) Serious Eye Damage/Eye Irritation Category 2 (H319) Skin Sensitization Category 1 (H317) Carcinogenicity Category 1B (H350i) Specific target organ toxicity - (single exposure) Category 3 (H335) 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

- H319 Causes serious eye irritation
- H330 Fatal if inhaled
- H315 Causes skin irritation
- H335 May cause respiratory irritation
- H301 Toxic if swallowed
- H372 Causes damage to organs through prolonged or repeated exposure
- H317 May cause an allergic skin reaction
- H350i May cause cancer by inhalation

Precautionary Statements

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- 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
- P201 Obtain special instructions before use

Additional EU labelling

Restricted to professional users

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2.3. Other hazards

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Beryllium	7440-41-7	EEC No. 231-150-7	> 99	Acute Tox. 3 (H301)
				Acute Tox. 2 (H330)
				Skin Irrit. 2 (H315)
				Eye Irrit. 2 (H319)
				Skin Sens. 1 (H317)
				Carc. 1B (H350i)
				STOT SE 3 (H335)
				STOT RE 1 (H372)

REACH registration number	-
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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.

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

advice. Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes.

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.

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

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

None reasonably foreseeable. 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

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Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Dry chemical.

Extinguishing media which must not be used for safety reasons

Carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

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

Hazardous Combustion Products

Beryllium oxide.

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

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. 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 allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

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

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). 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

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re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

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

Technical Rules for Hazardous Substances (TRGS) 510

Storage Class (LGK) (Germany)

Storage Class/LGK 6.1B

Switzerland - Storage of hazardous substances

Storage class - SC 6.1 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.

- 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). **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

Component	European Union	The United Kingdom	France	Belgium	Spain
Beryllium	TWA: 0.0002 mg/m ³	STEL: 0.006 mg/m ³ 15	TWA / VME: 0.0006	TWA: 0.00005 mg/m ³ 8	TWA / VLA-ED: 0.0002
	(8h)	min	mg/m³ (8 heures).	uren	mg/m³ (8 horas)
	TWA: 0.0006 mg/m ³	TWA: 0.002 mg/m ³ 8 hr	restrictive limit	STEL: 0.01 mg/m ³ 15	
	(8h)	Carc.		minuten	
	Skin			Huid	

Component	Italy	Germany	Portugal	The Netherlands	Finland
Beryllium	TWA: 0.0002 mg/m ³ 8	TWA: 0.00006 mg/m ³ (8	STEL: 0.01 mg/m ³ 15	huid	TWA: 0.0001 mg/m ³ 8
	ore. Time Weighted	Stunden). AGW -	minutos	TWA: 0.0006 mg/m ³ 8	tunteina
	Average	exposure factor 1	TWA: 0.0002 mg/m ³ 8	uren	TWA: 0,0006 mg/m ³ 8
	TWA: 0.0006 mg/m ³ 8	TWA: 0.00014 mg/m ³ (8	horas		tunteina
	ore. Time Weighted	Stunden). AGW -	TWA: 0.0006 mg/m ³ 8		STEL: 0.0004 mg/m ³ 15
	Average until July 11,	exposure factor 1	horas		minuutteina
	2026		Pele		lho
	Pelle				

Component	Austria	Denmark	Switzerland	Poland	Norway
Beryllium	TRK-KZGW: 0.0024	TWA: 0.00002 mg/m ³ 8	TWA: 0.0006 mg/m ³ 8	TWA: 0.0002 mg/m ³ 8	TWA: 0.0002 mg/m ³ 8
	mg/m ³ 15 Minuten	timer	Stunden	godzinach	timer
	TRK-TMW: 0.0006	STEL: 0.00004 mg/m ³			STEL: 0.0006 mg/m ³ 15
	mg/m³	15 minutter			minutter. value
	MAK-KZGW: 0.0002				calculated;valid until
	mg/m ³ 15 Minuten				July 11, 2026 inhalable
	MAK-TMW: 0,00002				fraction
	mg/m ³ 8 Stunden				

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Beryllium	TWA: 0.0006 mg/m ³	kože	TWA: 0.0002 mg/m ³ 8	TWA: 0.0002 mg/m ³	TWA: 0.0006 mg/m ³ 8
, i	_	TWA-GVI: 0.002 mg/m ³	hr.	_	hodinách.
		8 satima.	STEL: 0.0006 mg/m ³ 15		Ceiling: 0.002 mg/m ³
			min		
			Skin		

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Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Beryllium	TWA: 0.0006 mg/m ³ 8		TWA: 0.0002 mg/m ³	TWA: 0.0006 mg/m ³ 8	TWA: 0.0002 mg/m ³ 8
	tundides. valid until July			órában. AK	klukkustundum. valid
	10, 2026 inhalable			lehetséges borön	from July 12,
	fraction			keresztüli felszívódás	2026;irritates respiratory
					system inhalable
					fraction
					TWA: 0.0006 mg/m ³ 8
					klukkustundum. valid
					until July 11,
					2026;irritates respiratory
					system inhalable
					fraction
					Skin notation
					Ceiling: 0.0004 mg/m ³
					valid from July 12,
					2026;irritates respiratory
					system inhalable
					fraction
					Ceiling: 0.0012 mg/m ³
					valid until July 11,
					2026;irritates respiratory
					system inhalable
					fraction

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Beryllium	TWA: 0.001 mg/m ³	TWA: 0.0006 mg/m ³			TWA: 0.0002 mg/m ³ 8
	TWA: 0.0002 mg/m ³				ore
	_	substance may affect			
		skin and respiratory			
		tract			

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Beryllium	TWA: 0.001 mg/m ³ 0300	TWA: 0.005 mg/m ³ 8	TWA: 0.0006 mg/m ³ 8	TLV: 0.0002 mg/m ³ 8	
•	MAC: 0.003 mg/m ³	hodinách treated metal	urah applies until July	timmar. NGV	
		and alloy	11, 2026 inhalable	TLV: 0.0006 mg/m ³ 8	
		TWA: 0.002 mg/m ³ 8	fraction	timmar. NGV	
		hodinách others			
		STEL: 0.025 mg/m ³ 15			
		minútach treated metal			
		and alloy			
		STEL: 0.01 mg/m ³ 15			
		minútach			

Biological limit values

List source(s):

	Component	Italy	Finland	Denmark	Bulgaria	Romania
Г	Beryllium					Beryllium: 2 µg/L urine
						end of shift

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.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

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

No information available

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Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Engineering Measures

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 Nitrile rubber Neoprene PVC	Breakthrough time See manufacturers recommendations	Glove thickness	EU standard EN 374	Glove comments (minimum requirement)
Natural rubber				

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 When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

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

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

Environmental exposure controls No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Solid

AppearanceDark greyOdorOdorless

Odor ThresholdNo data availableMelting Point/Range1278 °C / 2332.4 °FSoftening PointNo data available

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@ 5 mmHa

Solid

Solid

2970 °C / 5378 °F **Boiling Point/Range** Flammability (liquid) Not applicable

Flammability (solid,gas) No information available **Explosion Limits** No data available

Flash Point No information available Method - No information available

Not applicable **Autoignition Temperature** No data available **Decomposition Temperature** No information available pН

. Viscosity Not applicable Solid

Water Solubility Insoluble

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Vapor Pressure 1.85 mmHg **Density / Specific Gravity** No data available 1.85 @ 20°C **Bulk Density** Vapor Density Not applicable

Particle characteristics No data available

9.2. Other information

Molecular Formula Ве **Molecular Weight** 9.01

Not applicable - Solid **Evaporation Rate**

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity None known, based on information available

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.

None under normal processing. **Hazardous Reactions**

10.4. Conditions to avoid

Incompatible products.

10.5. Incompatible materials

Acids. Bases. Halogens. Metals.

10.6. Hazardous decomposition products

Beryllium oxide.

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 3 No data available **Dermal**

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Inhalation Category 2

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;

No data available Respiratory Skin

Category 1

May cause sensitization by skin contact

No data available (e) germ cell mutagenicity;

Category 1B (f) carcinogenicity;

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

Component	EU	UK	Germany	IARC
Beryllium	Carc Cat. 1B		Cat. 1	Group 1

No data available (g) reproductive toxicity;

(h) STOT-single exposure; Category 3

Results / Target organs Respiratory system.

(i) STOT-repeated exposure; Category 1

Route of exposure Inhalation **Target Organs** Lungs.

Not applicable (j) aspiration hazard;

Solid

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

May cause long-term adverse effects in the environment. Do not allow material to **Ecotoxicity effects**

contaminate ground water system.

12.2. Persistence and degradability Product contains heavy metals. Discharge into the environment must be avoided. Special

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> pre-treatment is necessary Insoluble in water, May persist.

Not relevant for inorganic substances. Degradability

Contains substances known to be hazardous to the environment or not degradable in waste Degradation in sewage treatment plant

water treatment plants.

12.3. Bioaccumulative potential May have some potential to bioaccumulate; Product has a high potential to bioconcentrate

12.4. Mobility in soil Spillage unlikely to penetrate soil Is not likely mobile in the environment due its low water

solubility.

12.5. Results of PBT and vPvB

assessment

Persistence

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not

require 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 **Ozone Depletion Potential** This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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 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

Not regulated IMDG/IMO

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

Not regulated ADR

14.1. UN number

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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.

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
Beryllium	7440-41-7	231-150-7	-	ı	X	Χ	KE-02829	Χ	1
Component	CAS No	TSCA	TSCA In	ventory	DSL	NDSL	AICS	NZIoC	PICCS

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Beryllium	7440-41-7	X	ACTIVE	Х	-	X	Х	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)
Beryllium	7440-41-7	-	Use restricted. See entry 28. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details)	- Concern (SVNC)

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) -	Seveso III Directive (2012/18/EC) -
-		Qualifying Quantities for Major Accident	Qualifying Quantities for Safety Report

Beryllium foil

Notification Requirements Beryllium 7440-41-7 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 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

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Beryllium		Krebserzeugende Stoffe - Class I : 0.05 mg/m ³
		(Massenkonzentration)

Component	France - INRS (Tables of occupational diseases)		
Beryllium	Tableaux des maladies professionnelles (TMP) - RG 33		

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.

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: OTHER INFORMATION

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

H301 - Toxic if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H330 - Fatal if inhaled

H335 - May cause respiratory irritation

H350i - May cause cancer by inhalation

H372 - Causes damage to organs through prolonged or repeated exposure

Legend

CAS - Chemical Abstracts Service

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

Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

KECL - Korean Existing and Evaluated Chemical Substances

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TWA - Time Weighted Average

EC50 - Effective Concentration 50% **POW** - Partition coefficient Octanol:Water

LD50 - Lethal Dose 50%

Transport Association

ATE - Acute Toxicity Estimate

VOC - (volatile organic compound)

IARC - International Agency for Research on Cancer

ICAO/IATA - International Civil Aviation Organization/International Air

MARPOL - International Convention for the Prevention of Pollution from

Predicted No Effect Concentration (PNEC)

vPvB - very Persistent, very Bioaccumulative

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

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

Key literature references and sources for data

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

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

Training Advice

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

Ships

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.

Prepared By Health, Safety and Environmental Department

Revision Date 10-Sep-2024

Revision Summary New emergency telephone response service provider.

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).

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End of Safety Data Sheet