

according to Regulation (EC) No. 1907/2006

Revision Date 20-Feb-2024 Revision Number 3

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

1.1. Product identifier

Product Description: <u>Stainless Steel gauze, Type 316</u>

Cat No. : 4657

Molecular Formula Fe:Cr:Ni:Mo; 67.5:17:13:2.5 wt%

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

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

ALFAA46574

Stainless Steel gauze, Type 316

Revision Date 20-Feb-2024

Based on available data, the classification criteria are not met

Health hazards

Skin Sensitization Category 1 (H317)
Carcinogenicity Category 2 (H351)
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

H317 - May cause an allergic skin reaction

H351 - Suspected of causing cancer

H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary Statements

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

P201 - Obtain special instructions before use

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

P308 + P313 - IF exposed or concerned: Get medical advice/attention

2.3. Other hazards

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
			1212/2000
439-89-6	EEC No. 231-096-4	67.5	-
140-47-3	EEC No. 231-157-5	17.0	-
140-02-0	EEC No. 231-111-4	13.0	Skin Sens. 1 (H317) Carc. 2 (H351) STOT RE 1 (H372)
1	40-47-3	40-47-3 EEC No. 231-157-5	40-47-3 EEC No. 231-157-5 17.0

Revision Date 20-Feb-2024

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice If symptoms persist, call a physician.

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

medical attention.

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, **Skin Contact**

call a physician.

Clean mouth with water and drink afterwards plenty of water. Get medical attention if Ingestion

symptoms occur.

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

symptoms occur.

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

approved class D extinguishers. Do not use water or foam.

Extinguishing media which must not be used for safety reasons

Water may be ineffective.

5.2. Special hazards arising from the substance or mixture

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

Hazardous Combustion Products

Heavy metal oxides.

5.3. Advice for firefighters

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. No special precautions

Stainless Steel gauze, Type 316

required.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Do not allow material to contaminate ground water system.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal. Pick up and transfer to properly labelled containers.

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. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Hygiene Measures

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

7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry place. Keep away from acids.

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 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

Revision Date 20-Feb-2024

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

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

Component	European Union	The United Kingdom	France	Belgium	Spain
Chromium	TWA: 2 mg/m ³ (8hr)	STEL: 1.5 mg/m ³ 15 min	TWA / VME: 2 mg/m ³ (8	TWA: 0.5 mg/m ³ 8 uren	TWA / VLA-ED: 2 mg/m ³
		TWA: 0.5 mg/m ³ 8 hr	heures). indicative limit	_	(8 horas)
Nickel		STEL: 1.5 mg/m ³ 15 min	TWA / VME: 1 mg/m3 (8	TWA: 1 mg/m ³ 8 uren	TWA / VLA-ED: 1 mg/m ³
		TWA: 0.5 mg/m ³ 8 hr	heures).		(8 horas)

Stainless Steel gauze, Type 316

Revision Date 20-Feb-2024

		Skin	TWA / VME: 1 mg/m³ (8 heures). metal gratings		
Component	Italy	Germany	Portugal	The Netherlands	Finland
Chromium	TWA: 0.5 mg/m ³ 8 ore.	TWA: 2 mg/m ³ (8	TWA: 0.5 mg/m ³ 8 horas	TWA: 0.5 mg/m ³ 8 uren	TWA: 0.5 mg/m ³ 8

Compon	ent	Italy	Germany	Portugal	The Netherlands	Finland
Chromit	um	TWA: 0.5 mg/m ³ 8 ore.	TWA: 2 mg/m ³ (8	TWA: 0.5 mg/m ³ 8 horas	TWA: 0.5 mg/m ³ 8 uren	TWA: 0.5 mg/m ³ 8
		Time Weighted Average	Stunden). AGW -			tunteina
			exposure factor 1			
Nicke			TWA: 0.03 mg/m ³ (8	TWA: 1.5 mg/m ³ 8 horas		TWA: 0.01 mg/m ³ 8
			Stunden). AGW -			tunteina
			exposure factor 8			
			TWA: 0.006 mg/m ³ (8			
			Stunden). AGW -			
			exposure factor 8			

Component	Austria	Denmark	Switzerland	Poland	Norway
Chromium	MAK-TMW: 2 mg/m ³ 8 Stunden	TWA: 0.5 mg/m³ 8 timer STEL: 1 mg/m³ 15 minutter	TWA: 0.5 mg/m ³ 8 Stunden	TWA: 0.5 mg/m ³ 8 godzinach	TWA: 0.5 mg/m³ 8 timer STEL: 1.5 mg/m³ 15 minutter. value
					calculated
Nickel	TRK-KZGW: 2 mg/m ³ 15 Minuten TRK-TMW: 0.5 mg/m ³	TWA: 0.05 mg/m ³ 8 timer STEL: 0.1 mg/m ³ 15 minutter	TWA: 0.5 mg/m³ 8 Stunden	TWA: 0.25 mg/m ³ 8 godzinach	TWA: 0.05 mg/m ³ 8 timer STEL: 0.15 mg/m ³ 15 minutter. value calculated

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Iron	TWA: 6.0 mg/m ³				
Chromium	TWA: 2.0 mg/m ³	TWA-GVI: 2 mg/m³ 8 satima. Cr	TWA: 2 mg/m³ 8 hr. STEL: 6 mg/m³ 15 min	TWA: 2 mg/m ³	TWA: 0.5 mg/m ³ 8 hodinách. dust Ceiling: 1.5 mg/m ³
Nickel	TWA: 0.05 mg/m ³	TWA-GVI: 0.5 mg/m ³ 8 satima.	TWA: 0.5 mg/m³ 8 hr. STEL: 1.5 mg/m³ 15 min		TWA: 0.5 mg/m³ 8 hodinách. respirable fraction of aerosol Ceiling: 1 mg/m³

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Chromium	TWA: 2 mg/m ³ 8	TWA: 2 mg/m ³ 8 hr	TWA: 1 mg/m ³	TWA: 2 mg/m ³ 8	TWA: 0.5 mg/m ³ 8
	tundides.	_	_	órában. AK	klukkustundum.
					powder
					Ceiling: 1 mg/m ³
					powder
Nickel	TWA: 0.5 mg/m ³ 8		TWA: 1 mg/m ³	TWA: 0.01 mg/m ³ 8	TWA: 0.05 mg/m ³ 8
	tundides.		_	órában. AK	klukkustundum. Ni dust
					and powder
					Ceiling: 0.1 mg/m ³ Ni
					dust and powder

Componen	Latvia	Lithuania	Luxembourg	Malta	Romania
Chromium	TWA: 2 mg/m ³	TWA: 2 mg/m ³ IPRD	TWA: 2 mg/m ³ 8	TWA: 2 mg/m ³	TWA: 2 mg/m ³ 8 ore
		-	Stunden		·
Nickel	TWA: 0.05 mg/m ³	TWA: 0.5 mg/m ³ IPRD			TWA: 0.1 mg/m ³ 8 ore
		_			STEL: 0.5 mg/m ³ 15
					minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Iron	TWA: 10 mg/m ³ 1026	TWA: 6.0 mg/m³ total			
		aerosol			
Chromium			TWA: 2 mg/m³ 8 urah inhalable fraction STEL: 2 mg/m³ 15 minutah inhalable fraction	TLV: 0.5 mg/m³ 8 timmar. NGV	TWA: 2 mg/m³ 8 saat
Nickel	MAC: 0.05 mg/m ³	TWA: 0.5 mg/m³ 8 hodinách STEL: 0.05 mg/m³ 15 minútach	TWA: 0.006 mg/m³ 8 urah respirable fraction STEL: 0.048 mg/m³ 15 minutah respirable fraction	TLV: 0.5 mg/m³ 8 timmar. NGV	

Stainless Steel gauze, Type 316

Revision Date 20-Feb-2024

Component	European Union	United Kingdom	France	Spain	Germany
Chromium			Total Chromium: 0.01		
			mg/g creatinine urine		
			augmented during shift		
			Total Chromium: 0.03		
			mg/g creatinine urine		
			end of shift at end of		
			workweek		

Component	Italy	Finland	Denmark	Bulgaria	Romania
Chromium					Chromium: 10 µg/g
					Creatinine urine during
					working hours
					Chromium: 30 µg/g
					Creatinine urine end of
					work week
Nickel		Nickel: 0.1 µmol/L urine		Nickel: 45 µg/L urine	Nickel: 3 µg/L urine end
		after the shift after a		after several work shifts	of shift
		working week or			
		exposure period.			

Component	Gibraltar	Latvia	Slovak Republic	Luxembourg	Turkey
Chromium		Chromium: 10 µg/g			
		Creatinine urine end of			
		shift; end of work week			
Nickel		Nickel: 3 µg/L urine	Nickel: 0.03 mg/L blood		
			end of exposure or work		
			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

MDHS 91 Metals and metalloids in workplace air by X-ray fluorescence spectrometry

MDHS 99 Metals in air by ICP-AES

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

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Nickel 7440-02-0 (13.0)			DNEL = 0.035mg/cm2	

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Iron			DNEL = 3mg/m ³	
7439-89-6 (67.5)				
Chromium			$DNEL = 0.5mg/m^3$	
7440-47-3 (17.0)				
Nickel	DNEL = 11.9mg/m ³		DNEL = 0.05mg/m ³	$DNEL = 0.05mg/m^3$
7440-02-0 (13.0)				

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Microorganisms in sewage treatment	Soil (Agriculture)
Chromium 7440-47-3 (17.0)	PNEC = 6.5µg/L	PNEC = 205.7mg/kg sediment dw		PNEC = 21.1mg/kg soil dw
Nickel	PNEC = 7.1µg/L	PNEC = 109mg/kg	PNEC = 0.33mg/L	PNEC = 29.9 mg/kg

Revision Date 20-Feb-2024

Stainless Steel gauze, Type 316

7440-02-0 (13.0)	sediment dw		soil dw

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Nickel	PNEC = 8.6µg/L	PNEC = 109mg/kg		PNEC = 0.12mg/kg	
7440-02-0 (13.0)		sediment dw		food	

8.2. Exposure controls

Engineering Measures

None under normal use conditions.

Personal protective equipment

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

Hand Protection No special protective equipment required

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Disposable gloves	See manufacturers	-	EN 374	(minimum requirement)
	recommendations			

Skin and body protection Long sleeved clothing.

Respiratory Protection No special protective equipment required.

Large scale/emergency use In case of insufficient ventilation, wear suitable respiratory equipment

Small scale/Laboratory use

No personal respiratory protective equipment normally required

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water

system. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Solid

Appearance Silver
Odor Odorless
Odor Threshold No data available

Melting Point/RangeNo data availableSoftening PointNo data availableBoiling Point/RangeNo information available

Flammability (liquid) Not applicable Solid

Flammability (solid,gas) No information available

Explosion Limits No data available

Flash Point No information available Method - No information available

Autoignition Temperature No data available

Decomposition TemperaturepH

No data available
No information available

Viscosity Not applicable Solid

Water Solubility Insoluble in water
Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Vapor Pressure <=1100 hPa @ 50 °C Density / Specific Gravity No data available

Revision Date 20-Feb-2024

Stainless Steel gauze, Type 316

Bulk Density No data available

Vapor Density Not applicable Solid

Particle characteristics No data available

9.2. Other information

Molecular Formula Fe:Cr:Ni:Mo; 67.5:17:13:2.5 wt%

Evaporation Rate Not applicable - Solid

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous ReactionsNo information available.
None under normal processing.

10.4. Conditions to avoid

Incompatible products. Excess heat.

10.5. Incompatible materials

Acids. Oxidizing agent.

10.6. Hazardous decomposition products

Heavy metal oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

(a) acute toxicity;

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

DermalNo data availableInhalationNo data available

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Iron	7500 mg/kg (Rat)	-	-
Nickel	LD50 > 9000 mg/kg (Rat)	-	LC50 > 10.2 mg/L (Rat) 1 h

(b) skin corrosion/irritation; No data available

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

(d) respiratory or skin sensitization;

Respiratory No data available Skin Category 1

Stainless Steel gauze, Type 316

Revision Date 20-Feb-2024

May cause sensitization by skin contact

(e) germ cell mutagenicity; No data available

Category 2 (f) carcinogenicity;

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

Component EU		UK	Germany	IARC	
Nickel			Cat. 1	Group 2B	

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(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

The product contains following substances which are hazardous for the environment. **Ecotoxicity effects**

Contains a substance which is:. Very toxic to aquatic organisms. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water

system.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Nickel	LC50: > 100 mg/L, 96h (Brachydanio rerio) LC50: = 1.3 mg/L, 96h semi-static (Cyprinus carpio) LC50: = 10.4 mg/L, 96h static (Cyprinus carpio)	EC50 = 510 μg/L 96h	EC50 = 0.1 mg/L 72h EC50 = 0.18 mg/L 72h

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

pre-treatment is necessary

Persistence Insoluble in water, May persist. Degradability Not relevant for inorganic substances.

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

treatment plant water treatment plants.

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

Stainless Steel gauze, Type 316

Revision Date 20-Feb-2024

Component	log Pow	Bioconcentration factor (BCF)
Chromium		1.03 - 1.22

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

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 Ozone Depletion Potential

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

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused

Products

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

IATA Not regulated

14.1. UN number

14.2. UN proper shipping name

Stainless Steel gauze, Type 316 Revision Date 20-Feb-2024

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 Not applicable, packaged goods

according to IMO instruments

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
Iron	7439-89-6	231-096-4	-	-	X	X	KE-21059	X	-
Chromium	7440-47-3	231-157-5	-	-	Х	Х	KE-05970	Х	-
Nickel	7440-02-0	231-111-4	-	-	X	X	KE-25818	Х	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Iron	7439-89-6	X	ACTIVE	X	-	X	Х	X
Chromium	7440-47-3	Х	ACTIVE	Х	-	X	X	Х
Nickel	7440-02-0	X	ACTIVE	X	Ī	X	Х	Х

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)
Iron	7439-89-6	-	-	-
Chromium	7440-47-3	-	Use restricted. See item 75. (see link for restriction details)	-
Nickel	7440-02-0	-	Use restricted. See item 27. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)	-

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	
		Notification	Requirements	
Iron	7439-89-6	Not applicable	Not applicable	
Chromium	7440-47-3	Not applicable	Not applicable	
Nickel	7440-02-0	Not applicable	Not applicable	

Revision Date 20-Feb-2024

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

Not applicable

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

Not applicable

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

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

National Regulations

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

WGK Classification

Water endangering class = 2 (self classification)

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class	
Iron	nwg		
Chromium	nwg	Class III: 1 mg/m³ (Massenkonzentration)	
Nickel	WGK 2	Class II: 0.5 mg/m³ (Massenkonzentration)	
		Krebserzeugende Stoffe - Class II : 0.5 mg/m ³	
		(Massenkonzentration)	

	Component	T. 1	
Γ	Iron		
Chromium Tableaux des maladies professionnelles (TMP) - RG 10		Tableaux des maladies professionnelles (TMP) - RG 10	

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
Ī	Chromium 7440-47-3 (17.0)	Prohibited and Restricted Substances		
ſ	Nickel 7440-02-0 (13.0)	Prohibited and Restricted 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

H317 - May cause an allergic skin reaction

H351 - Suspected of causing cancer

H372 - Causes damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

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 List

Stainless Steel gauze, Type 316

Revision Date 20-Feb-2024

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

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

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

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

Training Advice

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

hygiene.

Health, Safety and Environmental Department **Prepared By**

Revision Date 20-Feb-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).

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

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

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

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

IARC - International Agency for Research on Cancer Predicted No Effect Concentration (PNEC)

NZIoC - New Zealand Inventory of Chemicals

TWA - Time Weighted Average

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

LD50 - Lethal Dose 50%

MARPOL - International Convention for the Prevention of Pollution from

Ships

ATE - Acute Toxicity Estimate **VOC** - (volatile organic compound)