

INSERT
COMPANY
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SAFETY DATA SHEET

Creation Date 05-Jan-2012

Revision Date 10-Dec-2021

Revision Number 2

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

1.1. Product identifier

Product Description: Salmonella O Factor 20 (Group C2) Agglutinating Sera
Cat No. : R30958401

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 Oxoid Ltd
Wade Road
Basingstoke, Hants, UK
RG24 8PW
Tel: +44 (0) 1256 841144

EU entity/business name

Oxoid Deutschland GmbH
Postfach 10 07 53
D-46483
Wesel
GERMANY
Tel: + 49 (0) 281 1520
Fax: 49 (0) 281 1521

E-mail address mbd-sds@thermofisher.com

1.4. Emergency telephone number

Chemtrec EU: 001-703-527-3887
Chemtrec US: (800) 424-9300

For 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

Based on available data, the classification criteria are not met

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 **None**

Hazard Statements

Precautionary Statements

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Phenol	108-95-2	EEC No. 203-632-7	<1.0	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Muta. 2 (H341) STOT RE 2 (H373)
Sodium hydroxide	1310-73-2	215-185-5	<0.5	Skin Corr. 1A (H314) Eye Dam. 1 (H318)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Phenol	Eye Irrit. 2 (H319) :: 1%≤C<3% Skin Corr. 1B (H314) :: C≥3% Skin Irrit. 2 (H315) :: 1%≤C<3%	-	-
Sodium hydroxide	Skin Corr. 1A :: C≥5% Skin Corr. 1B :: 2%≤C<5% Eye Irrit. 2 :: 0.5%≤C<2% Skin Irrit. 2 :: 0.5%≤C<2%	-	-

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Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact	Rinse thoroughly with plenty of water, also under the eyelids. Seek immediate medical attention/advice.
Skin Contact	Wash off immediately with soap and plenty of water. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention.
Inhalation	Remove to fresh air. Get medical attention if 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

No information available.

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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. 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

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

Hazardous Combustion Products

Hydrogen bromide, Carbon oxides, Nitrogen oxides (NO_x).

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

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation.

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6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Clean contaminated surface thoroughly.

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

Avoid contact with skin, eyes or clothing. Do not breathe mist/vapors/spray. Ensure adequate ventilation.

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 container tightly closed. Keep at temperatures between 2° and 8 °C.

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

Storage Class/LGK 12

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **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). **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
Phenol	TWA: 2 ppm (8h) TWA: 8 mg/m ³ (8h) STEL: 4 ppm (15min) STEL: 16 mg/m ³ (15min) Skin	STEL: 4 ppm 15 min STEL: 16 mg/m ³ 15 min TWA: 2 ppm 8 hr TWA: 7.8 mg/m ³ 8 hr Skin	TWA / VME: 2 ppm (8 heures). restrictive limit TWA / VME: 7.8 mg/m ³ (8 heures). restrictive limit STEL / VLCT: 4 ppm. restrictive limit STEL / VLCT: 15.6 mg/m ³ . restrictive limit Peau	TWA: 2 ppm 8 uren TWA: 8 mg/m ³ 8 uren STEL: 4 ppm 15 minuten STEL: 16 mg/m ³ 15 minuten Huid	STEL / VLA-EC: 4 ppm (15 minutos). STEL / VLA-EC: 16 mg/m ³ (15 minutos). TWA / VLA-ED: 2 ppm (8 horas) TWA / VLA-ED: 8 mg/m ³ (8 horas) Piel
Sodium hydroxide		2 mg/m ³ STEL	TWA / VME: 2 mg/m ³ (8 heures).	2 mg/m ³ VLE	STEL / VLA-EC: 2 mg/m ³ (15 minutos).

Component	Italy	Germany	Portugal	The Netherlands	Finland
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Phenol	TWA: 2 ppm 8 ore. Media Ponderata nel Tempo TWA: 8.0 mg/m ³ 8 ore. Media Ponderata nel Tempo STEL: 4 ppm 15 minuti. Breve termine STEL: 16 mg/m ³ 15 minuti. Breve termine Pelle	TWA: 2 ppm (8 Stunden). AGW - exposure factor 2 TWA: 8 mg/m ³ (8 Stunden). AGW - exposure factor 2 Haut	STEL: 4 ppm 15 minutos STEL: 16 mg/m ³ 15 minutos TWA: 2 ppm 8 horas TWA: 8 mg/m ³ 8 horas Pele	huid TWA: 8 mg/m ³ 8 uren	TWA: 2 ppm 8 tunteina TWA: 8 mg/m ³ 8 tunteina STEL: 4 ppm 15 minuutteina STEL: 16 mg/m ³ 15 minuutteina Iho
Sodium hydroxide		2 mg/m ³ TWA (inhalable fraction)	Ceiling: 2 mg/m ³		Ceiling: 2 mg/m ³

Component	Austria	Denmark	Switzerland	Poland	Norway
Phenol	Haut MAK-KZGW: 4 ppm 15 Minuten MAK-KZGW: 16 mg/m ³ 15 Minuten MAK-TMW: 2 ppm 8 Stunden MAK-TMW: 8 mg/m ³ 8 Stunden	TWA: 1 ppm 8 timer TWA: 4 mg/m ³ 8 timer Hud	Haut/Peau STEL: 5 ppm 15 Minuten STEL: 19 mg/m ³ 15 Minuten TWA: 5 ppm 8 Stunden TWA: 19 mg/m ³ 8 Stunden	STEL: 16 mg/m ³ 15 minutach TWA: 7.8 mg/m ³ 8 godzinach	TWA: 1 ppm 8 timer TWA: 4 mg/m ³ 8 timer STEL: 3 ppm 15 minutter. value from the regulation STEL: 12 mg/m ³ 15 minutter. value from the regulation Hud
Sodium hydroxide	MAK-KZGW: 4 mg/m ³ 15 Minuten MAK-TMW: 2 mg/m ³ 8 Stunden	Ceiling: 2 mg/m ³	STEL: 2 mg/m ³ 15 Minuten TWA: 2 mg/m ³ 8 Stunden	STEL: 1 mg/m ³ 15 minutach TWA: 0.5 mg/m ³ 8 godzinach	Ceiling: 2 mg/m ³

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Phenol	TWA: 2 ppm TWA: 8 mg/m ³ STEL : 4 ppm STEL : 16 mg/m ³ Skin notation	kože TWA-GVI: 2 ppm 8 satima. TWA-GVI: 8 mg/m ³ 8 satima. STEL-KGVI: 4 ppm 15 minutama. STEL-KGVI: 16 mg/m ³ 15 minutama.	TWA: 2 ppm 8 hr. TWA: 8 mg/m ³ 8 hr. STEL: 4 ppm 15 min STEL: 16 mg/m ³ 15 min Skin	Skin-potential for cutaneous absorption STEL: 16 mg/m ³ STEL: 4 ppm TWA: 8 mg/m ³ TWA: 2 ppm	TWA: 7.5 mg/m ³ 8 hodinách. Potential for cutaneous absorption Ceiling: 15 mg/m ³
Sodium hydroxide	TWA: 2.0 mg/m ³	STEL-KGVI: 2 mg/m ³ 15 minutama.	STEL: 2 mg/m ³ 15 min		TWA: 1 mg/m ³ 8 hodinách. Ceiling: 2 mg/m ³

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Phenol	Nahk TWA: 2 ppm 8 tundides. TWA: 8 mg/m ³ 8 tundides. STEL: 16 mg/m ³ 15 minutites. STEL: 4 ppm 15 minutites.	Skin notation TWA: 2 ppm 8 hr TWA: 8 mg/m ³ 8 hr STEL: 16 mg/m ³ 15 min STEL: 4 ppm 15 min	skin - potential for cutaneous absorption STEL: 4 ppm STEL: 16 mg/m ³ TWA: 2 ppm TWA: 8 mg/m ³	STEL: 16 mg/m ³ 15 percekben. CK TWA: 8 mg/m ³ 8 órában. AK lehetséges borön keresztüli felszívódás	TWA: 1 ppm 8 klukkustundum. TWA: 4 mg/m ³ 8 klukkustundum. Skin notation Ceiling: 2 ppm Ceiling: 8 mg/m ³
Sodium hydroxide	TWA: 1 mg/m ³ 8 tundides. STEL: 2 mg/m ³ 15 minutites.		STEL: 2 mg/m ³ TWA: 2 mg/m ³	STEL: 2 mg/m ³ 15 percekben. CK TWA: 1 mg/m ³ 8 órában. AK	STEL: 2 mg/m ³

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Phenol	skin - potential for cutaneous exposure STEL: 4 ppm STEL: 16 mg/m ³ TWA: 2 ppm TWA: 8 mg/m ³	TWA: 2 ppm IPRD TWA: 8 mg/m ³ IPRD Oda STEL: 4 ppm STEL: 16 mg/m ³	Possibility of significant uptake through the skin TWA: 2 ppm 8 Stunden TWA: 8 mg/m ³ 8 Stunden STEL: 16 mg/m ³ 15 Minuten STEL: 4 ppm 15 Minuten	possibility of significant uptake through the skin TWA: 2 ppm TWA: 8 mg/m ³ STEL: 16 mg/m ³ 15 minuti STEL: 4 ppm 15 minuti	Skin notation TWA: 2 ppm 8 ore TWA: 8 mg/m ³ 8 ore STEL: 4 ppm 15 minute STEL: 16 mg/m ³ 15 minute
Sodium hydroxide	TWA: 0.5 mg/m ³	Ceiling: 2 mg/m ³			

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Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Phenol	TWA: 0.3 mg/m ³ 0539 Skin notation MAC: 1 mg/m ³	Ceiling: 16 mg/m ³ Potential for cutaneous absorption TWA: 2 ppm TWA: 8 mg/m ³	TWA: 2 ppm 8 urah TWA: 8 mg/m ³ 8 urah Koža STEL: 4 ppm 15 minutah STEL: 16 mg/m ³ 15 minutah	Binding STEL: 4 ppm 15 minuter Binding STEL: 16 mg/m ³ 15 minuter TLV: 1 ppm 8 timmar. NGV TLV: 4 mg/m ³ 8 timmar. NGV Hud	Deri TWA: 2 ppm 8 saat TWA: 8 mg/m ³ 8 saat STEL: 4 ppm 15 dakika STEL: 16 mg/m ³ 15 dakika
Sodium hydroxide		TWA: 2 mg/m ³		Binding STEL: 2 mg/m ³ 15 minuter KGV TLV: 1 mg/m ³ 8 timmar. NGV	

Biological limit values

Component	European Union	United Kingdom	France	Spain	Germany
Phenol			Total Phenol: 250 mg/g creatinine urine end of shift	: 120 mg/g Creatinine urine end of shift	Phenol (after hydrolysis): 120 mg/g Creatinine urine (end of shift)

Component	Italy	Finland	Denmark	Bulgaria	Romania
Phenol		Total phenol: 1.3 mmol/L urine after the shift.		Phenol: 200 µg/L urine at the end of exposure or end of work shift	total Phenol: 120 mg/g Creatinine urine end of shift

Component	Gibraltar	Latvia	Slovak Republic	Luxembourg	Turkey
Phenol			Phenol: 200 mg/L urine 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.

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)
Phenol 108-95-2 (<1.0)				DNEL = 1.23mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Phenol 108-95-2 (<1.0)	DNEL = 16mg/m ³			DNEL = 8mg/m ³
Sodium hydroxide 1310-73-2 (<0.5)			DNEL = 1mg/m ³	

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Phenol	PNEC =	PNEC =	PNEC = 0.031mg/L	PNEC = 2.1mg/L	PNEC =

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108-95-2 (<1.0)	0.0077mg/L	0.0915mg/kg sediment dw			0.136mg/kg soil dw
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Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Phenol 108-95-2 (<1.0)	PNEC = 0.00077mg/L	PNEC = 0.00915mg/kg sediment dw			

8.2. Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

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

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

Hand Protection

Protective gloves

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

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

In case of insufficient ventilation, wear suitable respiratory equipment

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.
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	Liquid
Appearance	Amber
Odor	No information available
Odor Threshold	No data available
Melting Point/Range	No data available
Softening Point	No data available
Boiling Point/Range	Not applicable
Flammability (liquid)	No data available
Flammability (solid,gas)	No information available

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Explosion Limits	No data available	
Flash Point	Not applicable	Method - No information available
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
pH	6.6 - 6.8	
Viscosity	No data available	
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
Phenol	1.5	
Vapor Pressure	No data available	
Density / Specific Gravity	No data available	
Bulk Density	No data available	
Vapor Density	No data available	(Air = 1.0)
Particle characteristics	(liquid) Not applicable	

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
None known, based on information available

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization No information available.
Hazardous Reactions No information available.

10.4. Conditions to avoid
Incompatible products. Excess heat.

10.5. Incompatible materials
No materials to be especially mentioned.

10.6. Hazardous decomposition products
Hydrogen bromide. Carbon oxides. Nitrogen oxides (NOx).

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information Product does not present an acute toxicity hazard based on known or supplied information

(a) acute toxicity;
Oral No data available
Dermal No data available
Inhalation No data available

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phenol	LD50 = 340 mg/kg (Rat)	LD50 = 630 mg/kg (Rabbit)	-

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Sodium hydroxide	LD50 = 325 mg/kg (Rat)	LD50 = 1350 mg/kg (Rabbit)	-
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(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 No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

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

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

Symptoms / effects, both acute and delayed No information available.

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

Ecotoxicity effects

. Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Phenol	4-7 mg/L LC50 96 h 32 mg/L LC50 96 h	EC50: 10.2 - 15.5 mg/L, 48h (Daphnia magna) EC50: 4.24 - 10.7 mg/L, 48h Static (Daphnia magna)	EC50: 0.0188 - 0.1044 mg/L, 96h static (Pseudokirchneriella subcapitata) EC50: 187 - 279 mg/L, 72h static (Desmodesmus subspicatus) EC50: = 46.42 mg/L, 96h (Pseudokirchneriella subcapitata)
Sodium hydroxide	LC50: = 45.4 mg/L, 96h static		-

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	(Oncorhynchus mykiss)		
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Component	Microtox	M-Factor
Phenol	EC50 21 - 36 mg/L 30 min EC50 = 23.28 mg/L 5 min EC50 = 25.61 mg/L 15 min EC50 = 28.8 mg/L 5 min EC50 = 31.6 mg/L 15 min	
Sodium hydroxide	-	

12.2. Persistence and degradability No information available

12.3. Bioaccumulative potential No information available

Component	log Pow	Bioconcentration factor (BCF)
Phenol	1.5	No data available

12.4. Mobility in soil No information available .

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	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.
Contaminated Packaging	Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.
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.
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

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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
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
Phenol	108-95-2	203-632-7	-	-	X	X	KE-28209	X	X
Sodium hydroxide	1310-73-2	215-185-5	-	-	X	X	KE-31487	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Phenol	108-95-2	X	ACTIVE	X	-	X	X	X
Sodium hydroxide	1310-73-2	X	ACTIVE	X	-	X	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	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)
Phenol	-	Use restricted. See item 75. (see link for restriction details)	-
Sodium hydroxide	-	Use restricted. See item 75. (see link for restriction details)	-

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<https://echa.europa.eu/substances-restricted-under-reach>

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Phenol	108-95-2	Not applicable	Not applicable
Sodium hydroxide	1310-73-2	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

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 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 = 1 (self classification)

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Phenol	WGK2	Class I : 20 mg/m ³ (Massenkonzentration)
Sodium hydroxide	WGK1	

Component	France - INRS (Tables of occupational diseases)
Phenol	Tableaux des maladies professionnelles (TMP) - RG 14

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
Phenol 108-95-2 (<1.0)	Prohibited and Restricted Substances		
Sodium hydroxide 1310-73-2 (<0.5)	Prohibited and Restricted Substances		

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

H341 - Suspected of causing genetic defects

H373 - May cause damage to organs through prolonged or repeated exposure

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

SAFETY DATA SHEET

Salmonella O Factor 20 (Group C2) Agglutinating Sera

Revision Date 10-Dec-2021

H331 - Toxic if inhaled

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical 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

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

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

Key literature references and sources for data

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

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

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)

Training Advice

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

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Revision Date 10-Dec-2021
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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

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End of Safety Data Sheet