

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

### 1.1. Product identifier

Product Description: **Salmonella typhi Vi Stained Suspension**  
Cat No. : **R30953901**

### 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

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

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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

None required

## 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
Formaldehyde	50-00-0	200-001-8	<0.1	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Carc. 1B (H350) Muta. 2 (H341) STOT SE 3 (H335)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Formaldehyde	Skin Corr. 1B :: C>=25% Eye Irrit. 2 :: 5%<=C<25% Skin Irrit. 2 :: 5%<=C<25% Skin Sens. 1 :: C>=0.2% STOT SE 3 :: C>=5%	-	-

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. Get medical attention if symptoms occur.

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<b>Skin Contact</b>	Wash off immediately with soap and plenty of water. Get medical attention if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Get medical attention.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Self-Protection of the First Aider</b>	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 (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

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

None.

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

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

#### **Hazardous Combustion Products**

Nitrogen oxides (NO<sub>x</sub>).

### **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. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

### **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. Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly.

### **6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

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## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection.

### 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
Formaldehyde	TWA: 0.37 mg/m <sup>3</sup> (8h) TWA: 0.3 ppm (8h) Skin STEL: 0.74 mg/m <sup>3</sup> (8h) STEL: 0.6 ppm (8h)	STEL: 2 ppm 15 min STEL: 2.5 mg/m <sup>3</sup> 15 min TWA: 2 ppm 8 hr TWA: 2.5 mg/m <sup>3</sup> 8 hr Carc.	TWA / VME: 0.5 ppm (8 heures). STEL / VLCT: 1 ppm.		STEL / VLA-EC: 0.6 ppm (15 minutos). STEL / VLA-EC: 0.74 mg/m <sup>3</sup> (15 minutos). TWA / VLA-ED: 0.3 ppm (8 horas) TWA / VLA-ED: 0.37 mg/m <sup>3</sup> (8 horas)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Formaldehyde	TWA: 0.37 mg/m <sup>3</sup> 8 ore. Media Ponderata nel Tempo TWA: 0.3 ppm 8 ore. Media Ponderata nel Tempo TWA: 0.62 mg/m <sup>3</sup> 8 ore. Media Ponderata nel Tempo for the health care, funeral and embalming sectors until July 11, 2024 TWA: 0.5 ppm 8 ore. Media Ponderata nel Tempo for the health care, funeral and embalming sectors until	TWA: 0.3 ppm (8 Stunden). AGW - exposure factor 2 TWA: 0.37 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 0.3 ppm (8 Stunden). MAK no irritation should occur during mixed exposure TWA: 0.37 mg/m <sup>3</sup> (8 Stunden). MAK no irritation should occur during mixed exposure Höhepunkt: 0.6 ppm Höhepunkt: 0.74 mg/m <sup>3</sup>	STEL: 0.6 ppm 15 minutos STEL: 0.74 mg/m <sup>3</sup> 15 minutos Ceiling: 0.3 ppm TWA: 0.3 ppm 8 horas TWA: 0.37 mg/m <sup>3</sup> 8 horas TWA: 0.62 mg/m <sup>3</sup> 8 horas TWA: 0.5 ppm 8 horas	STEL: 0.5 mg/m <sup>3</sup> 15 minuten TWA: 0.15 mg/m <sup>3</sup> 8 uren	TWA: 0.3 ppm 8 tunteina TWA: 0.37 mg/m <sup>3</sup> 8 tunteina STEL: 0.6 ppm 15 minuutteina STEL: 0.74 mg/m <sup>3</sup> 15 minuutteina

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	July 11, 2024 STEL: 0.74 mg/m <sup>3</sup> 15 minuti. Breve termine STEL: 0.6 mg/m <sup>3</sup> 15 minuti. Breve termine Pelle				
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Component	Austria	Denmark	Switzerland	Poland	Norway
Formaldehyde	MAK-KZGW: 0.6 ppm 15 Minuten MAK-KZGW: 0.74 mg/m <sup>3</sup> 15 Minuten MAK-TMW: 0.3 ppm 8 Stunden MAK-TMW: 0.37 mg/m <sup>3</sup> 8 Stunden	Ceiling: 0.3 ppm Ceiling: 0.4 mg/m <sup>3</sup>	STEL: 0.6 ppm 15 Minuten STEL: 0.74 mg/m <sup>3</sup> 15 Minuten TWA: 0.3 ppm 8 Stunden TWA: 0.37 mg/m <sup>3</sup> 8 Stunden	STEL: 0.74 mg/m <sup>3</sup> 15 minutach TWA: 0.37 mg/m <sup>3</sup> 8 godzinach	TWA: 0.5 ppm 8 timer TWA: 0.6 mg/m <sup>3</sup> 8 timer Ceiling: 1 ppm Ceiling: 1.2 mg/m <sup>3</sup>

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Formaldehyde	TWA: 1.0 mg/m <sup>3</sup> STEL : 2.0 mg/m <sup>3</sup>	TWA-GVI: 0.3 ppm 8 satima. TWA-GVI: 0.37 mg/m <sup>3</sup> 8 satima. TWA-GVI: 0.5 ppm 8 satima. for health, funeral and embalming sector applies until July 11, 2024 TWA-GVI: 0.62 mg/m <sup>3</sup> 8 satima. for health, funeral and embalming sector applies until July 11, 2024 STEL-KGVI: 0.6 ppm 15 minutama. STEL-KGVI: 0.74 mg/m <sup>3</sup> 15 minutama.	TWA: 0.3 ppm 8 hr. TWA: 0.5 ppm 8 hr. for the healthcare, funeral and embalming sectors until July 11, 2024 TWA: 0.37 mg/m <sup>3</sup> 8 hr. TWA: 0.62 mg/m <sup>3</sup> 8 hr. for the healthcare, funeral and embalming sectors until July 11, 2024 STEL: 0.6 ppm 15 min STEL: 0.738 mg/m <sup>3</sup> 15 min STEL: 0.62 mg/m <sup>3</sup> 15 min		TWA: 0.5 mg/m <sup>3</sup> 8 hodinách. Potential for cutaneous absorption Ceiling: 1 mg/m <sup>3</sup>

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Formaldehyde	TWA: 0.5 ppm 8 tundides. TWA: 0.6 mg/m <sup>3</sup> 8 tundides. STEL: 1 ppm 15 minutites. STEL: 1.2 mg/m <sup>3</sup> 15 minutites.		STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup> TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup>	STEL: 0.6 mg/m <sup>3</sup> 15 percekben. CK TWA: 0.6 mg/m <sup>3</sup> 8 órában. AK lehetséges borön keresztüli felszívódás	STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup> TWA: 0.3 ppm 8 klukkustundum. TWA: 0.37 mg/m <sup>3</sup> 8 klukkustundum. Skin notation

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Formaldehyde	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.3 ppm IPRD TWA: 0.37 mg/m <sup>3</sup> IPRD TWA: 0.62 mg/m <sup>3</sup> IPRD for healthcare, funeral, and embalming industries TWA: 0.5 ppm IPRD for healthcare, funeral, and embalming industries STEL: 0.74 mg/m <sup>3</sup> STEL: 0.6 ppm			TWA: 1 ppm 8 ore TWA: 1.2 mg/m <sup>3</sup> 8 ore STEL: 2 ppm 15 minute STEL: 3 mg/m <sup>3</sup> 15 minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Formaldehyde	Skin notation MAC: 0.5 mg/m <sup>3</sup>	Ceiling: 0.74 mg/m <sup>3</sup> TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup>	TWA: 0.62 mg/m <sup>3</sup> 8 urah applies for health care, funeral and embalming activities until July 11, 2024 TWA: 0.5 ppm 8 urah applies for health care,	Binding STEL: 0.6 ppm 15 minuter Binding STEL: 0.74 mg/m <sup>3</sup> 15 minuter TLV: 0.3 ppm 8 timmar. NGV TLV: 0.37 mg/m <sup>3</sup> 8	

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			funeral and embalming activities until July 11, 2024 TWA: 0.37 mg/m <sup>3</sup> 8 urah TWA: 0.3 ppm 8 urah Koža STEL: 0.6 ppm 15 minutah STEL: 0.74 mg/m <sup>3</sup> 15 minutah	timmar. NGV Hud	
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## 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)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Formaldehyde 50-00-0 ( <0.1 )			DNEL = 37µg/cm <sup>2</sup>	DNEL = 240mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Formaldehyde 50-00-0 ( <0.1 )	DNEL = 0.75mg/m <sup>3</sup>		DNEL = 0.375mg/m <sup>3</sup>	DNEL = 9mg/m <sup>3</sup>

## Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Formaldehyde 50-00-0 ( <0.1 )	PNEC = 0.44mg/L	PNEC = 2.3mg/kg sediment dw	PNEC = 4.44mg/L	PNEC = 0.19mg/L	PNEC = 0.2mg/kg soil dw

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Formaldehyde 50-00-0 ( <0.1 )	PNEC = 0.44mg/L	PNEC = 2.3mg/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

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## 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

<b>Physical State</b>	Liquid	
<b>Appearance</b>	Blue	
<b>Odor</b>	No information available	
<b>Odor Threshold</b>	No data available	
<b>Melting Point/Range</b>	Not applicable	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	Not applicable	
<b>Flammability (liquid)</b>	No data available	
<b>Flammability (solid,gas)</b>	No information available	
<b>Explosion Limits</b>	No data available	
<b>Flash Point</b>	Not applicable	<b>Method -</b> No information available
<b>Autoignition Temperature</b>	Not applicable	
<b>Decomposition Temperature</b>	No data available	
<b>pH</b>	7.3 - 7.5	
<b>Viscosity</b>	No data available	
<b>Water Solubility</b>	Soluble	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Formaldehyde	-0.35	
<b>Vapor Pressure</b>	No data available	
<b>Density / Specific Gravity</b>	No data available	
<b>Bulk Density</b>	No data available	
<b>Vapor Density</b>	No data available	(Air = 1.0)
<b>Particle characteristics</b>	Not applicable (liquid)	

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## 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

Hazardous polymerization does not occur.

#### Hazardous Reactions

None under normal processing.

### 10.4. Conditions to avoid

Exposure to moisture.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

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
Formaldehyde	500 mg/kg (Rat)	LD50 = 270 mg/kg (Rabbit)	0.578 mg/L (Rat) 4 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

No data available

Component	Test method	Test species	Study result
Formaldehyde 50-00-0 ( <0.1 )	Skin sensitization Test method Patch Test	Man guinea pig	Sensitizer Sensitization
	Respiratory sensitization in vitro		



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As a precaution the product should be treated as a sensitizer

(e) germ cell mutagenicity; No data available

None known

(f) carcinogenicity; No data available

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

Component	EU	UK	Germany	IARC
Formaldehyde	Carc Cat. 1B	Cat 3		Group 1

(g) reproductive toxicity; No data available

Reproductive Effects  
Developmental Effects

None known.  
None known.

(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

Component	Freshwater Fish	Water Flea	Freshwater Algae
Formaldehyde	Leuciscus idus: LC50 = 15 mg/L 96h	EC50 = 20 mg/L 96h EC50 = 2 mg/L 48h	

**12.2. Persistence and degradability** No information available

**12.3. Bioaccumulative potential** No information available

Component	log Pow	Bioconcentration factor (BCF)
Formaldehyde	-0.35	No data available

**12.4. Mobility in soil** No information available

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**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** Dispose of in accordance with local regulations.

**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

**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

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**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
Formaldehyde	50-00-0	200-001-8	-	-	X	X	KE-17074	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Formaldehyde	50-00-0	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)
Formaldehyde	-	Use restricted. See item 72. (see link for restriction details) Use restricted. See item 28. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)	-

<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
Formaldehyde	50-00-0	5 tonne	50 tonne

#### 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)

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Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Formaldehyde	WGK 3	Class I : 20 mg/m <sup>3</sup> (Massenkonzentration)

Component	France - INRS (Tables of occupational diseases)
Formaldehyde	Tableaux des maladies professionnelles (TMP) - RG 43

## 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
Formaldehyde 50-00-0 ( <0.1 )		Group I	

## 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  
H311 - Toxic in contact with skin  
H331 - Toxic if inhaled  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H317 - May cause an allergic skin reaction  
H351 - Suspected of causing cancer

### 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)

# SAFETY DATA SHEET

Salmonella typhi Vi Stained Suspension

Revision Date 10-Dec-2021

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## Training Advice

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

Creation Date	04-Jul-2011
Revision Date	10-Dec-2021
Revision Summary	Not 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**