

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Formaldehyde Sample Buffer

Version 4.0

Revision Date 26.04.2024

Print Date 14.12.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Product name : Formaldehyde Sample Buffer
Material number : 50571

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : For research use only.
Recommended restrictions on use : NOT FOR USE IN GMP MANUFACTURING, NOR HUMAN OR ANIMAL IN VIVO OR DIAGNOSTIC USE.

1.3 Details of the supplier of the safety data sheet

Company : **Lonza Ltd**
Muenchensteinerstrasse 38
CH-4002 Basel, Switzerland
Business Telephone: +41 61 316 81 11

Lonza Verviers Sprl
Parc Industriel de Petit-Rechain
BE-4800 Verviers, Belgium
Business Telephone: +32 8732 1611

Lonza Cologne GmbH
Nattermannallee 1
DE-50829 Köln, Germany
Business Telephone: + 49 221 99 1990

E-mail address / Responsible/issuing person : sds@lonza.com

1.4 Emergency telephone number

Emergency telephone number : Lonza Ltd, CH-4002 Basel, Switzerland
Telephone: +41 61 313 94 94 (24h)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Acute toxicity, Category 4	H312: Harmful in contact with skin.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Germ cell mutagenicity, Category 2	H341: Suspected of causing genetic defects.
Carcinogenicity, Category 1B	H350: May cause cancer.
Reproductive toxicity, Category 1B	H360D: May damage the unborn child.
Specific target organ toxicity - single	H371: May cause damage to organs.

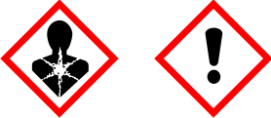
Formaldehyde Sample Buffer

exposure, Category 2, Eyes
 Specific target organ toxicity - single exposure, Category 3, Respiratory system
 Specific target organ toxicity - repeated exposure, Category 2

H335: May cause respiratory irritation.
 H373: May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms : 

Signal word : Danger

Hazard statements : H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H341 Suspected of causing genetic defects.
 H350 May cause cancer.
 H360D May damage the unborn child.
 H371 May cause damage to organs (Eyes).
 H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements : **Prevention:**
 P201 Obtain special instructions before use.
 P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P280 Wear protective gloves/ eye protection/ face protection.

Response:
 P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.
 P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.

Hazardous components which must be listed on the label:

Formamide
 Formaldehyde
 Methanol

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Formaldehyde Sample Buffer

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. REACH Registration Number	Classification	Concentration (% w/w)
Formamide	75-12-7 200-842-0 616-052-00-8 01-2119496064-35-XX XX	Carc. 2; H351 Repr. 1B; H360D STOT RE 2; H373	>= 30 - < 50
Formaldehyde	50-00-0 200-001-8 605-001-00-5 01-2119488953-20-XX XX	Acute Tox. 3; H301 Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 3; H311 Skin Corr. 1B; H314 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Skin Sens. 1; H317 Muta. 2; H341 Muta. 2; H341 Carc. 1B; H350 Carc. 1B; H350 specific concentration limit Skin Corr. 1B; H314 >= 25 % Skin Irrit. 2; H315 5 - < 25 % Eye Irrit. 2; H319 5 - < 25 % STOT SE 3; H335 >= 5 % Skin Sens. 1; H317 >= 0,2 % Acute toxicity estimate Acute oral toxicity: 100 mg/kg Acute inhalation toxicity: 3,1 mg/l Acute dermal toxicity: 270 mg/kg	>= 10 - < 15
Methanol	67-56-1 200-659-6 603-001-00-X 01-2119433307-44-XX	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311	>= 3 - < 5

Formaldehyde Sample Buffer

	XX	STOT SE 1; H370 (Eyes)	
		specific concentration limit STOT SE 1; H370 >= 10 % STOT SE 2; H371 3 - < 10 %	

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : After contact with skin, wash immediately with plenty of soap and water.
If on clothes, remove clothes.
In the case of skin irritation or allergic reactions see a physician.
- In case of eye contact : Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes.
Call a physician immediately.
Remove contact lenses.
Keep eye wide open while rinsing.
Protect unharmed eye.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray
- Unsuitable extinguishing media : High volume water jet

Formaldehyde Sample Buffer

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Heating or fire can release toxic gas.
- Hazardous combustion products : Nitrogen oxides (NO_x)
Ammonia
Carbon oxides (CO_x)
Formaldehyde

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
- Specific extinguishing methods : Standard procedure for chemical fires.
- Further information : Use water spray to cool unopened containers.

Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment.
Use respirator when performing operations involving potential exposure to vapour of the product.

6.2 Environmental precautions

- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

- For personal protection see section 8.
- For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Avoid formation of aerosol.
Avoid exposure - obtain special instructions before use.
Do not breathe vapours/dust.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national

Formaldehyde Sample Buffer

regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Wash hands before breaks and at the end of workday. When using do not eat, drink or smoke. Avoid contact with skin, eyes and clothing.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Observe label precautions. Keep container tightly closed. Keep in a well-ventilated place. To maintain product quality, do not store in heat or direct sunlight.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Countries not listed may have their own country specific values.

Occupational Exposure Limits

European Union

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Methanol	67-56-1	TWA	200 ppm 260 mg/m ³	2006/15/EC
Further information		Indicative, Identifies the possibility of significant uptake through the skin		

Switzerland

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Formamide	75-12-7	TWA	10 ppm 18 mg/m ³	CH SUVA
Formaldehyde	50-00-0	TWA	0,3 ppm 0,37 mg/m ³	2004/37/EC
		STEL	0,6 ppm 0,74 mg/m ³	2004/37/EC
		TWA	0,3 ppm 0,37 mg/m ³	CH SUVA
		STEL	0,6 ppm 0,74 mg/m ³	CH SUVA
Methanol	67-56-1	TWA	200 ppm 260 mg/m ³	2006/15/EC
		TWA	200 ppm 260 mg/m ³	CH SUVA
		STEL	400 ppm 520 mg/m ³	CH SUVA

Formaldehyde Sample Buffer

Biological occupational exposure limits

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value	
Formaldehyde	Workers	Inhalation	Long-term systemic effects	9 mg/m ³	
	Workers	Dermal	Long-term local effects	0,037 mg/cm ²	
	Workers	Dermal	Long-term systemic effects	240 mg/kg	
	Workers	Inhalation	Acute local effects	1,0 mg/m ³	
	Workers	Inhalation	Long-term local effects	0,5 mg/m ³	
	Consumers	Oral	Long-term systemic effects	4,1 mg/kg	
	Consumers	Dermal	Long-term local effects	0,012 mg/cm ²	
	Consumers	Dermal	Long-term systemic effects	102 mg/kg	
	Consumers	Inhalation	Long-term local effects	0,1 mg/m ³	
	Consumers	Inhalation	Long-term systemic effects	3,2 mg/m ³	
	Methanol	Workers	Dermal	Acute systemic effects	40 mg/kg
		Workers	Inhalation	Acute systemic effects	260 mg/m ³
		Workers	Inhalation	Acute local effects	260 mg/m ³
		Workers	Dermal	Long-term systemic effects	40 mg/kg
Workers		Inhalation	Long-term local effects	260 mg/m ³	
Workers		Inhalation	Long-term systemic effects	260 mg/m ³	
Consumers		Dermal	Acute systemic effects	8 mg/kg	
Consumers		Inhalation	Acute systemic effects	50 mg/m ³	
Consumers		Oral	Acute systemic effects	8 mg/kg	
Consumers		Inhalation	Long-term local effects	50 mg/m ³	
Consumers		Oral	Long-term systemic effects	8 mg/kg	
Consumers		Inhalation	Long-term systemic effects	50 mg/m ³	
Consumers		Dermal	Long-term systemic effects	8 mg/kg	
Consumers		Inhalation	Acute local effects	50 mg/m ³	

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Formaldehyde	Fresh water	0,47 mg/l
	Soil	0,21 mg/kg
	Marine sediment	2,44 mg/kg
	Fresh water sediment	2,44 mg/kg
	Sewage treatment plant	0,19 mg/l
	Intermittent use/release	4,7 mg/l
	Marine water	0,47 mg/l
Methanol	Fresh water	154 mg/l
	Marine water	15,4 mg/l
	Sediment	570,4 mg/kg
	Soil	23,5 mg/kg
	Sewage treatment plant	100 mg/l
	Intermittent use/release	1540 mg/l

Formaldehyde Sample Buffer

8.2 Exposure controls

Engineering measures

Use only in area provided with appropriate exhaust ventilation.

Personal protective equipment

Eye protection : Safety goggles

Hand protection

Material : Nitrile rubber

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Impervious gloves Break through time : > 480 min
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Impervious clothing

Respiratory protection : Respirator with a vapour filter (EN 141)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Appearance : Aqueous solution

Colour : No data available

Odour : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flammability : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature
Decomposition temperature : No data available

Formaldehyde Sample Buffer

pH	:	6 - 8
Viscosity		
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	completely soluble
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	No data available
Relative vapour density	:	No data available
Particle characteristics	:	No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No hazards to be specially mentioned.

10.4 Conditions to avoid

Conditions to avoid : Keep away from heat and sources of ignition.

Heat

10.5 Incompatible materials

Materials to avoid : Oxidizing agents
Strong acids and strong bases

10.6 Hazardous decomposition products

No decomposition if used as directed.
Hazardous decomposition products : Hydrogen cyanide

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Acute oral toxicity : Acute toxicity estimate: 644,75 mg/kg

Formaldehyde Sample Buffer

- Method: Calculation method
- Acute inhalation toxicity : Acute toxicity estimate: 19,34 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method
- Acute dermal toxicity : Acute toxicity estimate: 1 793 mg/kg
Method: Calculation method

Skin corrosion/irritation

Remarks: No data available

Serious eye damage/eye irritation

Remarks: No data available

Respiratory or skin sensitisation

Remarks: No data available

Germ cell mutagenicity

Genotoxicity in vitro : Remarks: No data available

Carcinogenicity

Remarks: No data available

Carcinogenicity - Assessment : May cause cancer.

Reproductive toxicity

Effects on fertility : Remarks: No data available

Reproductive toxicity - Assessment : May cause harm to the unborn child.

STOT - single exposure

Remarks: No data available

STOT - repeated exposure

Remarks: No data available

Aspiration toxicity

No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Formaldehyde Sample Buffer

Further information

Remarks: No data available

The following toxicological data refer to:

Formamide (CAS-No.: 75-12-7)

Acute toxicity

Acute oral toxicity : LD50 (Rat): 5 800 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 21 mg/l
 Exposure time: 4 h
 Test atmosphere: vapour
 Method: OECD Test Guideline 403
 GLP: yes

Acute dermal toxicity : LD50 (Rabbit): 17 000 mg/kg

Skin corrosion/irritation

Species: Rabbit
 Result: No skin irritation
 Assessment: No skin irritation

Serious eye damage/eye irritation

Species: Rabbit
 Result: No eye irritation
 Assessment: No eye irritation

Respiratory or skin sensitisation

Species: Guinea pig
 Result: not sensitizing

Germ cell mutagenicity

Genotoxicity in vitro : Test Type: Ames test
 Species: Salmonella typhimurium
 Metabolic activation: yes
 Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
 Result: negative

Carcinogenicity

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies (oral)

STOT - repeated exposure

Exposure routes: Inhalation, Skin contact, Ingestion
 Target Organs: Cardio-vascular system

Assessment: May cause damage to organs through prolonged or repeated exposure.

Formaldehyde Sample Buffer

Formaldehyde (CAS-No.: 50-00-0)**Acute toxicity**

- Acute oral toxicity : LD50 (Rat): 100 mg/kg
Acute toxicity estimate: 100 mg/kg
Method: Calculation method
- Acute inhalation toxicity : Acute toxicity estimate: 3,1 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method
- Acute dermal toxicity : LD50 (Rabbit): 270 mg/kg
Acute toxicity estimate: 270 mg/kg
Method: Calculation method

Skin corrosion/irritation

Species: Rabbit
Result: Severe skin irritation
Assessment: Causes burns.

Serious eye damage/eye irritation

Species: Rabbit
Result: Severe eye irritation
Assessment: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Species: Guinea pig
Assessment: Causes sensitisation.
Result: Sensitising

Germ cell mutagenicity

- Genotoxicity in vitro : Test Type: Ames test
Species: Salmonella typhimurium
Method: OECD Test Guideline 471
Result: positive
GLP: yes
- : Test Type: Chromosome aberration test in vitro
Species: Chinese hamster ovary cells
Result: positive
GLP: yes
- : Test Type: gene mutation test
Species: mouse lymphoma cells
Result: positive

Formaldehyde Sample Buffer

Methanol (CAS-No.: 67-56-1)

Acute toxicity

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Remarks: No data available

Respiratory or skin sensitisation

Species: Guinea pig
Result: not sensitizing

Germ cell mutagenicity

Genotoxicity in vitro : Test Type: gene mutation test
Species: mouse lymphoma cells
Result: negative

Reproductive toxicity

Effects on fertility : Species: Rat
General Toxicity - Parent: NOAEL: 1,33 mg/l

Effects on foetal development : Species: Rat
Teratogenicity: NOAEL: 1,3 mg/l

STOT - single exposure

Target Organs: Eyes
Assessment: Causes damage to organs.

STOT - repeated exposure

Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish : Remarks: No data available

12.2 Persistence and degradability

Biodegradability : Remarks: No data available

Formaldehyde Sample Buffer

12.3 Bioaccumulative potential

Bioaccumulation : Remarks: No data available

12.4 Mobility in soil

Distribution among environmental compartments : Remarks: No data available

12.5 Results of PBT and vPvB assessment

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of contents/container in accordance with local regulation.
Contact waste disposal services.
Do not dispose of waste into sewer.

Contaminated packaging : Dispose of as unused product.
Do not re-use empty containers.

Formaldehyde Sample Buffer

SECTION 14: Transport information

IATA

14.1	UN number	:	3334
14.2	Proper shipping name	:	Aviation regulated liquid, n.o.s. (Formaldehyde)
14.3	Transport hazard class(es)	:	9
14.4	Packing group	:	III
	Labels	:	9
14.5	Environmental hazards	:	no

IMDG

Not dangerous goods

14.1	UN number	:	Not applicable
14.2	Proper shipping name	:	Not applicable
14.3	Transport hazard class(es)	:	Not applicable
14.4	Packing group	:	Not applicable
14.5	Environmental hazards	:	Marine pollutant: no

ADR

Not dangerous goods

14.1	UN number	:	Not applicable
14.2	Proper shipping name	:	Not applicable
14.3	Transport hazard class(es)	:	Not applicable
14.4	Packing group	:	Not applicable
14.5	Environmental hazards	:	no

RID

Not dangerous goods

14.1	UN number	:	Not applicable
14.2	Proper shipping name	:	Not applicable
14.3	Transport hazard class(es)	:	Not applicable
14.4	Packing group	:	Not applicable
14.5	Environmental hazards	:	no

DOT

Not dangerous goods

14.1	UN number	:	Not applicable
14.2	Proper shipping name	:	Not applicable
14.3	Transport hazard class(es)	:	Not applicable
14.4	Packing group	:	Not applicable

TDG

Not dangerous goods

14.1	UN number	:	Not applicable
14.2	Proper shipping name	:	Not applicable
14.3	Transport hazard class(es)	:	Not applicable
14.4	Packing group	:	Not applicable
14.5	Environmental hazards	:	no

14.6 Special precautions for user

Formaldehyde Sample Buffer

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Candidate List of Substances of Very High Concern : Formamide
for Authorisation (Article 59).

REACH - List of substances subject to authorisation (Annex : Not applicable
XIV)

Regulation (EU) 2019/1021 on persistent organic pollutants : Not applicable
(recast)

REACH - Restrictions on the manufacture, placing on the : Not applicable
market and use of certain dangerous substances, mixtures and
articles (Annex XVII)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of
major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
14	Formaldehyde (concentration ≥ 90 %)	5 t	50 t
22	Methanol	500 t	5 000 t

Water hazard class (Germany) : WGK 3 highly hazardous to water

15.2 Chemical safety assessment

not required

Formaldehyde Sample Buffer

SECTION 16: Other information

Classification of the mixture:

Acute Tox. 4	H302
Acute Tox. 4	H332
Acute Tox. 4	H312
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
Muta. 2	H341
Carc. 1B	H350
Repr. 1B	H360D
STOT SE 2	H371
STOT SE 3	H335
STOT RE 2	H373

Classification procedure:

Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method

Full text of H-Statements

H225	: Highly flammable liquid and vapour.
H301	: Toxic if swallowed.
H311	: Toxic in contact with skin.
H314	: Causes severe skin burns and eye damage.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H331	: Toxic if inhaled.
H341	: Suspected of causing genetic defects.
H350	: May cause cancer.
H351	: Suspected of causing cancer if swallowed.
H360D	: May damage the unborn child.
H370	: Causes damage to organs.
H373	: May cause damage to organs through prolonged or repeated exposure.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Carc.	: Carcinogenicity
Eye Dam.	: Serious eye damage
Flam. Liq.	: Flammable liquids
Muta.	: Germ cell mutagenicity
Repr.	: Reproductive toxicity
Skin Corr.	: Skin corrosion
Skin Sens.	: Skin sensitisation
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure
2004/37/EC	: Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
2006/15/EC	: Europe. Indicative occupational exposure limit values
CH SUVA	: Switzerland. Limit values at the work place

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE - Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR – Biocidal

Formaldehyde Sample Buffer

Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV – Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide – National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT - Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL - Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG – Dutch Threshold Limit Value; TGV – Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France; VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

Further information

Other information : This Safety Data Sheet is a generic European Safety Data Sheet and therefore does not contain all specific information for each European country.

Date format : dd.mm.yyyy

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.

99 / EN