

according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 1 of 13

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Formalin 20 %, carbonate buffer, pH neutral

Further trade names

This MSDS covers the following products in all container sizes:

- REF 15603.xxxxx Formalin 4 %, Carbonatpuffer, pH neutral (grün)

UFI: AM6D-E1CA-Y00Y-1WJQ

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

Use of the substance/mixture

Use as laboratory reagent. The product is intended for research, analysis and scientific education.

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name: MORPHISTO GmbH
Street: Schumannstr. 142/144
Place: D-63069 Offenbach

Telephone: +49 (0) 69 / 400 3019-60 Telefax: +49 (0) 69 / 400 3019-64

e-mail: info@morphisto.de
Internet: http://www.morphisto.de

Supplier

Company name: MORPHISTO GmbH
Street: Schumannstr. 142/144
Place: D-63069 Offenbach

Telephone: +49 (0) 69 / 400 3019-60 Telefax: +49 (0) 69 / 400 3019-64

e-mail: info@morphisto.de
Internet: http://www.morphisto.de

1.4. Emergency telephone Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Hazard categories:

Acute toxicity: Acute Tox. 4

Respiratory or skin sensitisation: Skin Sens. 1

Germ cell mutagenicity: Muta. 2 Carcinogenicity: Carc. 1B Hazard Statements: Harmful if swallowed.

May cause an allergic skin reaction. Suspected of causing genetic defects.

May cause cancer.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

formaldehyde 37 %

methanol



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 2 of 13

Signal word: Danger

Pictograms:





Hazard statements

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.

H350 May cause cancer.

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

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

protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of Wasser.

P362+P364 Take off contaminated clothing and wash it before reuse. P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

Special labelling of certain mixtures

EUH208 Contains Formaldehyd. May produce an allergic reaction.

Restricted to professional users.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

in aqueous solution

Hazardous components

CAS No	Chemical name	Chemical name			Quantity
	EC No	Index No		REACH No	
	GHS Classification				
50-00-0	formaldehyde 37 %				1 - < 5 %
	200-001-8	605-001-00-5			
	Carc. 1B, Muta. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1; H350 H341 H331 H311 H301 H314 H317				
67-56-1	methanol				< 1 %
	200-659-6	603-001-00-X			
	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370				

Full text of H and EUH statements: see section 16.



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 3 of 13

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. L	imits, M-factors and ATE	
50-00-0	200-001-8	formaldehyde 37 %	1 - < 5 %
	300 mg/kg; oral	= 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = : ATE = 100 mg/kg	
67-56-1	200-659-6	methanol	< 1 %
		= 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = : ATE = 100 mg/kg	

Further Information

hydrolysis produces small amounts of methanol.

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Remove contaminated, saturated clothing immediately. Remove affected person from the danger area and lay down. Remove person to fresh air and keep comfortable for breathing. To supervise the blood circulation.

After inhalation

If breathing is irregular or stopped, administer artificial respiration. Provide fresh air. Get immediate medical advice/attention.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist. Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

4.2. Most important symptoms and effects, both acute and delayed

Inebriation, Dizziness, Headache, Drowsiness, Agitation, Spasms, Impairment of vision, Anaesthetic state, Coma, Irritation and etching, Allergic reactions, Cough, Dyspnoea, Danger of blindness!

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Treat symptomatically. - Advice for first medical aid:

After contact with solutions / concentrated vapors rinse eyes persistently with water. Always follow-up by ophthalmologist as soon as possible. Wash contaminated skin thoroughly with water. Treat irritated areas with Dermatocorticoid. After extensive wetting a clarification is recommended.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.





according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 4 of 13

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn. Vapours can form explosive mixtures with air. Can be released in case of fire: Carbon monoxide Carbon dioxide (CO2). Formaldehyde

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

For non-emergency personnel

Ventilate affected area. Clear danger zone. Follow emergency plan. Consult an expert.

For emergency responders

Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Move undamaged containers from immediate hazard area if it can be done safely.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Discharge into the environment must be avoided. Inform competent authorities in case of accidental release. (Larger quantities)

6.3. Methods and material for containment and cleaning up

For containment

Cover drains. Collect, embank and pump out. Observe possible material restrictions (section 10).

For cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

The contaminated area should be cleaned up immediately with:a concentrated aqueous sodium bisulfite solution. Rinse with water.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Technical ventilation of workplace. If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Wear suitable protective clothing. (See section 8.) Avoid exposure - obtain special instructions before use. Keep container tightly closed. Always close containers tightly after the removal of product.

Advice on protection against fire and explosion

The product itself does not burn. Usual measures for fire prevention.



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 5 of 13

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Always close containers tightly after the removal of product. Take off contaminated clothing and wash it before reuse. Used working clothes should not be worn outside the work area. Street clothing should be stored seperately from work clothing.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep only in the original container in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: food and feed. pharmaceuticals. Infectious substances. Radioactive substances. Explosive substances. Oxidizing substances. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Pyrophoric solids. Substances which in contact with water form flammable gases. Ammonium nitrate and preparations containing ammonium nitrate. Gas.. Oxidizing liquids. Oxidizing solids. Combustible toxic substances. Non-combustible toxic substances.

Further information on storage conditions

Keep/Store only in original container. Ensure adequate ventilation of the storage area. Store small packages in a suitable, robust cabinet. Recommended storage temperature: 15°-25°C.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
50-00-0	Formaldehyde	2	2.5		TWA (8 h)	WEL
		2	2.5		STEL (15 min)	WEL
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL

8.2. Exposure controls









Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Technical ventilation of workplace. Process within closed systems. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Provide washing facilities at the workplace, provide an eye shower or eyewash bottle and mark them.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses. DIN EN 166



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 6 of 13

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Suitable material: Pull-over gloves of rubber. EN ISO 374 penetration time (maximum wearing period): >= 8 Stunden):

CR (polychloroprenes, Chloroprene rubber). (0,5 mm)

NBR (Nitrile rubber). (0,35 mm) FKM (fluororubber). (0,4 mm) PVC (Polyvinyl chloride). (0,5 mm)

Butyl rubber. (0,5 mm)

Before using check leak tightness / impermeability.

Skin protection

Suitable protective clothing: Protective clothing.: Solvent resistant.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

Respiratory protection

Respiratory protection necessary at:

Insufficient ventilation., insufficient absorbtion., exceeding exposure limit values, Release of:product Suitable respiratory protective equipment:

Self-contained respirator (breathing apparatus) (DIN EN 133)

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

productDo not allow to enter into surface water or drains. Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid Colour: green

Odour: slightly irritant - stinging
Odour threshold: There is no data available.

Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

64,7 °C

boiling range:

Pour point: not determined Flash point: not applicable

Flammability

Solid/liquid: not applicable Gas: not applicable

Explosive properties

The product is not: Explosive. Vapours can form explosive mixtures with air.

Lower explosion limits: not determined Upper explosion limits: not determined Auto-ignition temperature: not determined

Self-ignition temperature



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 7 of 13

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

none

pH-Value (at 20 °C): 7
Viscosity / dynamic: not determined
Viscosity / kinematic: not determined
Water solubility: completely miscible

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density:

0,99 g/cm³

Relative vapour density:

not determined

not determined

9.2. Other information

Information with regard to physical hazard classes

Sustaining combustion: Not sustaining combustion

Other safety characteristics

Solvent content: 98,93 %
Solid content: 1,07 %
Evaporation rate: not determined

Further Information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal storage and handling conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Incompatible materials: Oxidizing agents.

10.4. Conditions to avoid

Keep away from heat. Protect against direct sunlight.

10.5. Incompatible materials

Materials to avoid: Nitrogen oxides (NOx). Nitric acid. Hydrogenium peroxide. Oxidizing agents, strong. Reducing agents, strong. Aniline.Performic acid, perchloric acid

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO2), Formaldehyde, Phosphorus oxides,

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

Harmful if swallowed.



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 8 of 13

ATEmix calculated

ATE (oral) 1953,1 mg/kg

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
50-00-0	formaldehyde 37 %					
	oral	ATE mg/kg	100			
	dermal	ATE mg/kg	300			
	inhalation vapour	ATE	3 mg/l			
	inhalation aerosol	ATE	0,5 mg/l			
67-56-1	methanol					
	oral	ATE mg/kg	100			
	dermal	ATE mg/kg	300			
	inhalation vapour	ATE	3 mg/l			
	inhalation aerosol	ATE	0,5 mg/l			

Irritation and corrosivity

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

Sensitising effects

Contains Formaldehyd. May produce an allergic reaction. May cause an allergic skin reaction. (formaldehyde 37 %)

People who suffer from skin sensitazion problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing genetic defects. (formaldehyde 37 %)

May cause cancer. (formaldehyde 37 %)

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

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

STOT-repeated exposure

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

formaldehyde 4,5 % (CAS-No.: 50-00-0):

Chronic oral toxicity Exposure time: 105 weeks Species: Wistar Rat.

Method: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Result: NOAEL = 150 mg/kg bw/day Literature information: ECHA Dossier

Aspiration hazard

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

Specific effects in experiment on an animal

No information available.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 9 of 13

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
67-56-1	methanol						
	Acute fish toxicity	LC50 mg/l	15400	96 h	Lepomis macrochirus	ECHA Dossier	
	Acute algae toxicity	ErC50 mg/l	22000		Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 7	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 10000	48 h	Daphnia magna	Water Research 23(4): 495-499 (1989)	DIN 38412 Teil 11

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name					
	Method	Value	d	Source		
	Evaluation					
67-56-1	methanol					
	other guideline	76%	20	ECHA Dossier		
	Easily biodegradable (concerning to the criteria of the OECD)					

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
67-56-1	methanol	-0,77

BCF

CAS No	Chemical name	BCF	Species	Source
67-56-1	methanol	1	Cyprinus carpio	Comparative Biochemi

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 10 of 13

every industry and process. Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and

discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances,

including mixtures of laboratory chemicals: hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and

discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances,

including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by

hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	Not restricted
14.2. UN proper shipping name:	Not restricted
14.3. Transport hazard class(es):	Not restricted
14.4. Packing group:	Not restricted

Inland waterways transport (ADN)

14.1. UN number or ID number:	Not restricted
14.2. UN proper shipping name:	Not restricted
14.3. Transport hazard class(es):	Not restricted
14.4. Packing group:	Not restricted

Marine transport (IMDG)

14.1. UN number or ID number:	Not restricted
14.2. UN proper shipping name:	Not restricted
14.3. Transport hazard class(es):	Not restricted
14.4. Packing group:	Not restricted

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	Not restricted
14.2. UN proper shipping name:	Not restricted
14.3. Transport hazard class(es):	Not restricted
14.4. Packing group:	Not restricted

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Not restricted

14.7. Maritime transport in bulk according to IMO instruments

not applicable





according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 11 of 13

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 28, Entry 69

2010/75/EU (VOC): 5,12 % (51,712 g/l) 2004/42/EC (VOC): 5,12 % (51,712 g/l)

Information according to 2012/18/EU

(SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

Additional information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Not subject to 96/82/EC (Seveso II).

2012/18/CE (SEVESO III) Annex I, Part 1: none REACH 1907/2006 Appendix XVII, No: 3, 28/29/30

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of

child-bearing age.

Water hazard class (D): 3 - highly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

Additional information

Gefahrengruppe C, HD

Schutzstufe 2

Die in diesem Sicherheitsdatenblatt angegebene Schutzstufe berücksichtigt keine speziellen

Verhältnisse am Arbeitsplatz und muss ggf. angepasst werden.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Rev. 1,00; 28.07.2021; Initial release

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

CAS Chemical Abstracts Service DNEL: Derived No Effect Level

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral

Revision date: 28.07.2021 Product code: 15603.xxxxx Page 12 of 13

NOAEL: No observed adverse effect level NOAEC: No observed adverse effect level NTP: National Toxicology Program

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PNEC: predicted no effect concentration PBT: Persistent bioaccumulative toxic

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de

fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

SARA: Superfund Amendments and Reauthorization Act

SVHC: substance of very high concern TRGS Technische Regeln fuerGefahrstoffe TSCA: Toxic Substances Control Act VOC: Volatile Organic Compounds

VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe

WGK: Wassergefaehrdungsklasse

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate LL50: Lethal loading, 50% EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate NOFC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

EmS: Emergency Schedules MFAG: Medical First Aid Guide

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Skin Sens. 1; H317	Calculation method
Muta. 2; H341	Calculation method
Carc. 1B; H350	Calculation method

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H301 Toxic if swallowed.
H302 Harmful if swallowed.



according to UK REACH Regulation

Formalin 20 %, carbonate buffer, pH neutral			
Revision date: 28.07.2021	Product code: 15603.xxxxx	Page 13 of 13	
H311	Toxic in contact with skin.		
H314	Causes severe skin burns and eye damage.		
H317	May cause an allergic skin reaction.		
H331	Toxic if inhaled.		
H341	Suspected of causing genetic defects.		
H350	May cause cancer.		
H370	Causes damage to organs.		
EUH208	Contains Formaldehyd. May produce an allergic reaction.		

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)