

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)  
Issue date: 27/07/2021 Revision date: 27/07/2021 Supersedes version of: 05/07/2019 Version: 10.00

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

**1.1. Product identifier**

Trade name : [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL]  
[CONJL] [AB SOLN] [CONJS]

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

**1.2.1. Relevant identified uses**

Use of the substance/mixture : In vitro diagnostics

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

**Supplier**

NovaTec Immundiagnostica GmbH  
Waldstraße 23 A6  
63128 Dietzenbach - Germany

**Email competent person**

sds@kft.de

**1.4. Emergency telephone number**

Emergency number : +49 (0)6074-4876-0 (available only during business hours from Monday – Friday 08:30 a.m.  
– 12:00 a.m. and 1:00 p.m. – 4:30 p.m.)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Skin sensitisation, Category 1 H317

Full text of H-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

May cause an allergic skin reaction.

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Contains :

2-methylisothiazol-3(2H)-one

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.

Precautionary statements (CLP) :

P261 - Avoid breathing mist, vapours, spray.

P280 - Wear protective clothing, protective gloves, eye protection.

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

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

**2.3. Other hazards**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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according to Regulation (EC) No. 1907/2006 (REACH)

Component	
2-methylisothiazol-3(2H)-one (2682-20-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Comments : Solvent mixture with additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-methylisothiazol-3(2H)-one	(CAS-No.) 2682-20-4 (EC-No.) 220-239-6 (EC Index-No.) 613-326-00-9	0.01 – 0.02	Acute Tox. 2 (Inhalation), H330 (ATE=0.1 mg/l/4h) Acute Tox. 3 (Dermal), H311 (ATE=242 mg/kg bodyweight) Acute Tox. 3 (Oral), H301 (ATE=120 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
2-methylisothiazol-3(2H)-one	(CAS-No.) 2682-20-4 (EC-No.) 220-239-6 (EC Index-No.) 613-326-00-9	( 0.0015 ≤ C ≤ 100) Skin Sens. 1A, H317

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Take off contaminated clothing. Wash skin with plenty of water. Cover wounds with sterile bandage. Get medical advice if skin irritation persists. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
First-aid measures after ingestion	: Rinse mouth out with water. Drink plenty of water. Do NOT induce vomiting. Call a doctor. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: May cause an allergic skin reaction.
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# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Not combustible. Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.
- Unsuitable extinguishing media : Strong water jet.

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

- Hazardous decomposition products in case of fire : release of harmful/irritant gases/vapours. Nitrogen oxides.

### 5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Protective equipment : Concerning personal protective equipment to use, see section 8.
- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist, vapours, spray.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: sand, saw dust. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Wash away remainder with plenty of water.
- Other information : Disposal must be done according to official regulations.

### 6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing mist, vapours, spray.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.

# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

### 7.3. Specific end use(s)

In vitro diagnostics.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

<b>2-methylisothiazol-3(2H)-one (2682-20-4)</b>	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	0.043 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.021 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - systemic effects, oral	0.053 mg/kg bodyweight/day
Acute - local effects, inhalation	0.043 mg/m <sup>3</sup>
Long-term - systemic effects, oral	0.027 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.021 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	3.39 µg/L
PNEC aqua (marine water)	3.39 µg/L
PNEC aqua (intermittent, freshwater)	3.39 µg/L
PNEC aqua (intermittent, marine water)	3.39 µg/L
<b>PNEC (Soil)</b>	
PNEC soil	0.047 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	0.23 mg/l

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

##### Appropriate engineering controls:

Keep workplace clean and tidy as much as possible. Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

##### 8.2.2.1. Eye and face protection

# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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### Eye protection:

Chemical goggles. EN 166

### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing. EN ISO 13688. EN 13034

#### Hand protection:

Chemically resistant protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,35	3 (> 0.65)	EN ISO 374

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Filter. A-P2. EN 143. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust.

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 6.3 – 7.5 (20 °C)
Viscosity, kinematic	: Not available
Solubility	: Water: Miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available

# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Other properties : [AG LYO]: Powder, white to slightly yellow/pink

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available.

### 10.2. Chemical stability

No decomposition if stored normally.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

heat.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

2-methylisothiazol-3(2H)-one (2682-20-4)	
LD50 oral rat	120 mg/kg bodyweight (EPA OPPTS 870.1100)
LD50 dermal rat	242 mg/kg bodyweight (OECD 402 method)
LC50 Inhalation - Rat (Dust/Mist)	0.1 mg/l/4h (OECD 403 method)

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 6.3 – 7.5 (20 °C)
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# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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Additional information	: Repeated or prolonged skin contact may cause irritation
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 6.3 – 7.5 (20 °C)
Additional information	: Slight eye irritant upon direct contact
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

### 2-methylisothiazol-3(2H)-one (2682-20-4)

LC50 - Fish [1]	4.77 mg/l (96 h; Oncorhynchus mykiss; (OECD 203 method))
EC50 - Crustacea [1]	0.934 mg/l (48 h; Daphnia magna; (OECD 202 method))
EC50 72h algae	0.103 mg/l (72 h, Pseudokirchneriella Subcapita; (OECD 201 method))
ErC50 algae	0.072 mg/l (OECD 201 method)
NOEC chronic fish	4.93 mg/l (98 d; Oncorhynchus mykiss; (OECD 210 method))
NOEC chronic crustacea	0.044 mg/l (21 d; Daphnia magna; (OECD 211 method))
NOEC chronic algae	0.05 mg/l (5 d; Pseudokirchneriella subcapitata; (OECD 201 method))

### 12.2. Persistence and degradability

#### [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

Persistence and degradability	No additional information available.
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### 2-methylisothiazol-3(2H)-one (2682-20-4)

Persistence and degradability	Not readily biodegradable. (OECD 301B method). (OECD 301D method).
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### 12.3. Bioaccumulative potential

#### [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

Partition coefficient n-octanol/water (Log Pow)	Not applicable
Bioaccumulative potential	No additional information available.

### 2-methylisothiazol-3(2H)-one (2682-20-4)

Partition coefficient n-octanol/water (Log Pow)	-0.486 (20 °C)
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# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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Bioaccumulative potential	Bioaccumulation unlikely.
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### 12.4. Mobility in soil

[CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]	
Ecology - soil	No additional information available.

<b>2-methylisothiazol-3(2H)-one (2682-20-4)</b>	
Surface tension	68.8 mN/m (19 °C, EEC Method A5)
Ecology - soil	Low mobility (soil).

### 12.5. Results of PBT and vPvB assessment

[CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

<b>Component</b>	
2-methylisothiazol-3(2H)-one (2682-20-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Other adverse effects : No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
Product/Packaging disposal recommendations	: Dirty containers cannot be handled as normal waste. Disposal must be done according to official regulations.
European List of Waste (LoW) code	: 16 05 06* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals 15 01 02 - plastic packaging

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable



# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	
Reference code	Applicable on
3(b)	[CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Other information, restriction and prohibition regulations : Take note of Directive 94/33/EC on the protection of young people at work.

#### 15.1.2. National regulations

##### United Kingdom

National regulations : This safety data sheet is for informational purposes only and does not comply with national legal requirements without reference to a national distributor. The national distributor is responsible for a legally compliant safety data sheet.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
	General revision		
15.1	National regulations	Added	

# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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<b>Abbreviations and acronyms:</b>	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

Data sources : MSDS of the supplier. European Chemicals Agency, <http://echa.europa.eu/>.

Department issuing data : KFT Chemieservice GmbH

specification sheet: Im Leuschnerpark 3  
D-64347 Griesheim

Phone: +49 6155-8981-400

Fax: +49 6155 8981-500

SDS Service: +49 6155 8981-522

Contact person : Christian Rank

Other information : Version/s 1.00-8.00 is/are not available in this language.

<b>Full text of H- and EUH-statements:</b>	
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3

# [CAL] [CONTROL +] [CUT OFF] [AG LYO] [CONTROL L] [CONTROL H] [CONTROL] [CONJL] [AB SOLN] [CONJS]

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Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
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.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

<b>Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:</b>		
Skin Sens. 1	H317	Calculation method

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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

Trade name : [CONJ] [CONJ STRE]

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Use of the substance/mixture : In vitro diagnostics

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet****Supplier**NovaTec Immundiagnostica GmbH  
Waldstraße 23 A6  
63128 Dietzenbach - Germany**Email competent person**

sds@kft.de

**1.4. Emergency telephone number**

Emergency number : +49 (0)6074-4876-0 (available only during business hours from Monday – Friday 08:30 a.m. – 12:00 a.m. and 1:00 p.m. – 4:30 p.m.)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

**Adverse physicochemical, human health and environmental effects**

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

**2.2. Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request.

**2.3. Other hazards**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

**Component**

ethanol (64-17-5)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII**SECTION 3: Composition/information on ingredients****3.1. Substances**

Not applicable

**3.2. Mixtures**

Comments : Solvent mixture with additives

# [CONJ] [CONJ STRE]

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol substance with national workplace exposure limit(s) (GB)	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5	≥ 1 – < 2.5	Flam. Liq. 2, H225 Eye Irrit. 2, H319

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
ethanol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5	( 50 ≤ C < 100) Eye Irrit. 2, H319

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Take off contaminated clothing. Cover wounds with sterile bandage. Get medical advice if skin irritation persists. Wash skin with plenty of water.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth out with water. Drink plenty of water. Do NOT induce vomiting. Call a doctor. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: May cause slight irritation.
Symptoms/effects after eye contact	: May cause eye irritation.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Not combustible. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: No information available. Strong water jet.

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

Hazardous decomposition products in case of fire	: Toxic fumes may be released. release of harmful/irritant gases/vapours. Nitrogen oxides. Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide.
--	--

#### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Protective equipment	: Concerning personal protective equipment to use, see section 8.
----------------------	---

# [CONJ] [CONJ STRE]

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Emergency procedures : Ventilate spillage area.

### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: sand, saw dust. Wash away remainder with plenty of water. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.

Other information : Disposal must be done according to official regulations.

### 6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, cool, well-ventilated area. Keep cool.

Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

### 7.3. Specific end use(s)

In vitro diagnostics.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

ethanol (64-17-5)	
United Kingdom - Occupational Exposure Limits	
Local name	Ethanol
WEL TWA (OEL TWA) [1]	1920 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	1000 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

ethanol (64-17-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day

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Long-term - systemic effects, inhalation	950 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	87 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	114 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	206 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l
PNEC aqua (intermittent, freshwater)	2.75 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	2.9 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.63 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	0.38 kg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	580 mg/l

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station. Keep workplace clean and tidy as much as possible.

### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

<b>Eye protection:</b>
Use splash goggles when eye contact due to splashing is possible. EN 166

#### 8.2.2.2. Skin protection

<b>Skin and body protection:</b>
Wear suitable protective clothing. EN ISO 13688. EN 13034

<b>Hand protection:</b>					
In case of repeated or prolonged contact wear gloves. EN 374. Chemically resistant protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,35	No additional information available	EN ISO 374

#### 8.2.2.3. Respiratory protection

No additional information available

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according to Regulation (EC) No. 1907/2006 (REACH)

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Various.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7 – 7.4 (20 °C)
Viscosity, kinematic	: Not available
Solubility	: Water: Miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

VOC content : 0 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available.

### 10.2. Chemical stability

No decomposition if stored normally.



# [CONJ] [CONJ STRE]

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### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

heat.

### 10.5. Incompatible materials

No additional information available.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7 – 7.4 (20 °C)
Additional information	: Repeated or prolonged skin contact may cause irritation
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7 – 7.4 (20 °C)
Additional information	: Slight eye irritant upon direct contact
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

### 12.2. Persistence and degradability

#### [CONJ] [CONJ STRE]

Persistence and degradability	The product has not been tested.
-------------------------------	----------------------------------

#### ethanol (64-17-5)

Persistence and degradability	Readily biodegradable.
Biodegradation	84 % (20 d)

# [CONJ] [CONJ STRE]

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according to Regulation (EC) No. 1907/2006 (REACH)

### 12.3. Bioaccumulative potential

[CONJ] [CONJ STRE]	
Bioaccumulative potential	No additional information available.

ethanol (64-17-5)	
Partition coefficient n-octanol/water (Log Kow)	-0.35 (20 °C)
Bioaccumulative potential	Bioaccumulation unlikely.

### 12.4. Mobility in soil

[CONJ] [CONJ STRE]	
Ecology - soil	No additional information available.

ethanol (64-17-5)	
Surface tension	22.31 mN/m (20 °C)

### 12.5. Results of PBT and vPvB assessment

[CONJ] [CONJ STRE]	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

Component	
ethanol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Other adverse effects : No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
Product/Packaging disposal recommendations	: Dirty containers cannot be handled as normal waste. Disposal must be done according to official regulations. Recycle or dispose of in compliance with current legislation.
European List of Waste (LoW) code	: 16 05 06* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals 15 01 02 - plastic packaging

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

# [CONJ] [CONJ STRE]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	
Reference code	Applicable on
3(a)	ethanol
3(b)	ethanol
40.	ethanol

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 0 %

#### 15.1.2. National regulations

##### United Kingdom

National regulations : This safety data sheet is for informational purposes only and does not comply with national legal requirements without reference to a national distributor. The national distributor is responsible for a legally compliant safety data sheet.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

# [CONJ] [CONJ STRE]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
	General revision		

Abbreviations and acronyms:	
ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

# [CONJ] [CONJ STRE]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Data sources : MSDS of the supplier. European Chemicals Agency, <http://echa.europa.eu/>.  
Department issuing data : KFT Chemieservice GmbH  
specification sheet: Im Leuschnerpark 3  
D-64347 Griesheim  
  
Phone: +49 6155-8981-400  
Fax: +49 6155 8981-500  
SDS Service: +49 6155 8981-522  
  
Contact person : Christian Rank  
Other information : This safety data sheet is for informational purposes only and does not comply with national legal requirements without reference to a national distributor. The national distributor is responsible for a legally compliant safety data sheet.

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
EUH210	Safety data sheet available on request.

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)  
Issue date: 05/08/2021 Revision date: 05/08/2021 Supersedes version of: 26/05/2020 Version: 11.00

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

**1.1. Product identifier**

Trade name : [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD]  
[WASH SOLN 20x]

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

**1.2.1. Relevant identified uses**

Use of the substance/mixture : In vitro diagnostics

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

**Manufacturer/Supplier**

NovaTec Immundiagnostica GmbH  
Waldstraße 23 A6  
63128 Dietzenbach - Germany

**Email competent person**

sds@kft.de

**1.4. Emergency telephone number**

Emergency number : +49 (0)6074-4876-0 (available only during business hours from Monday – Friday 08:30 a.m.  
– 12:00 a.m. and 1:00 p.m. – 4:30 p.m.)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Skin sensitisation, category 1A H317

Full text of H-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

May cause an allergic skin reaction.

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Contains :

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.

Precautionary statements (CLP) :

P261 - Avoid breathing mist, vapours, spray.  
P280 - Wear protective gloves.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.

EUH-statements :

EUH032 - Contact with acids liberates very toxic gas.

**2.3. Other hazards**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component	
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Comments : Solvent mixture with additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (Note B)	(CAS-No.) 55965-84-9 (EC Index-No.) 613-167-00-5	≥ 0,0015	Acute Tox. 2 (Inhalation), H330 (ATE=0.171 mg/l/4h) Acute Tox. 2 (Dermal), H310 (ATE=87.12 mg/kg bodyweight) Acute Tox. 3 (Oral), H301 (ATE=64 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	(CAS-No.) 55965-84-9 (EC Index-No.) 613-167-00-5	( 0.0015 ≤C ≤ 100) Skin Sens. 1A, H317 ( 0.06 ≤C < 0.6) Eye Irrit. 2, H319 ( 0.06 ≤C < 0.6) Skin Irrit. 2, H315 ( 0.6 ≤C ≤ 100) Eye Dam. 1, H318 ( 0.6 ≤C ≤ 100) Skin Corr. 1C, H314

Note B : Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
First-aid measures after skin contact : Take off contaminated clothing. Cover wounds with sterile bandage. Get medical advice if skin irritation persists. Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Rinse mouth out with water. Drink plenty of water. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

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

- Symptoms/effects : No additional information available.
- Symptoms/effects after skin contact : May cause slight irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : May cause eye irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide. Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Strong water jet.

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

- Hazardous decomposition products in case of fire : Toxic fumes may be released. Nitrogen oxides. Carbon monoxide. Carbon dioxide.

### 5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Protective equipment : Concerning personal protective equipment to use, see section 8.
- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist, vapours, spray.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Wash away remainder with plenty of water.
- Other information : Disposal must be done according to official regulations.

### 6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.



# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing mist, vapours, spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

#### 7.3. Specific end use(s)

In vitro diagnostics.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	0.04 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.02 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - systemic effects, oral	0.11 mg/kg bodyweight
Acute - local effects, inhalation	0.04 mg/m <sup>3</sup>
Long-term - systemic effects, oral	0.09 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.02 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.00339 mg/l
PNEC aqua (marine water)	0.00339 mg/l
PNEC aqua (intermittent, freshwater)	0.00339 mg/l
PNEC aqua (intermittent, marine water)	0.00339 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.027 mg/kg dwt
PNEC sediment (marine water)	0.027 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.01 mg/kg dwt

# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

PNEC (STP)	
PNEC sewage treatment plant	0.23 mg/l

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station. Keep workplace clean and tidy as much as possible.

### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

Eye protection:
Wear closed safety glasses. EN 166

#### 8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing. EN ISO 13688. EN 13034

Hand protection:					
Chemically resistant protective gloves. Gloves must be replaced after each use and whenever signs of wear or perforation appear. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. EN 374					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,35	3 (> 0.65)	EN ISO 374

#### 8.2.2.3. Respiratory protection

Respiratory protection:
Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust. In case of inadequate ventilation wear respiratory protection. Breathing apparatus with filter. A-P2. EN 143

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Various.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not applicable

# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive properties	: Product is not explosive.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7 – 8.2 (20 °C)
Viscosity, kinematic	: Not available
Solubility	: Water: Miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

VOC content : 0 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available.

### 10.2. Chemical stability

No decomposition if stored normally.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Contact with acids liberates very toxic gas.

### 10.4. Conditions to avoid

heat.

### 10.5. Incompatible materials

No additional information available. Acids.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	
LD50 oral rat	64 mg/kg (male)
LD50 dermal rabbit	87.12 mg/kg bodyweight (male)
LC50 Inhalation - Rat (Dust/Mist)	0.33 mg/l/4h (OECD 403 method)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: 7 – 8.2 (20 °C)  
Additional information : Repeated or prolonged skin contact may cause irritation  
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: 7 – 8.2 (20 °C)  
Additional information : Slight eye irritant upon direct contact  
Respiratory or skin sensitisation : May cause an allergic skin reaction. (Based on available data, the classification criteria are not met)  
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)  
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)  
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)  
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)  
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)  
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

#### 11.2. Information on other hazards

No additional information available

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : May cause pH changes in aqueous ecological systems.  
Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)  
Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	
LC50 - Fish [1]	0.19 mg/l (96 h; Oncorhynchus mykiss; EPA OPP 72-1)
EC50 - Crustacea [1]	0.18 mg/l (48 h; Daphnia magna; EPA OPP 72-2)
ErC50 algae	0.0273 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))
NOEC chronic fish	0.098 mg/l (28 d; Oncorhynchus mykiss; (OECD 215 method))
NOEC chronic crustacea	0.328 mg/l (21 d; Daphnia magna; (OECD 211 method))

# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

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according to Regulation (EC) No. 1907/2006 (REACH)

### 12.2. Persistence and degradability

[DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]	
Persistence and degradability	No additional information available.

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	
Persistence and degradability	Readily biodegradable, failing 10-d window.
Biodegradation	62 % (29 d; (OECD 301B method))

### 12.3. Bioaccumulative potential

[DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]	
Bioaccumulative potential	No additional information available.

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	
Bioconcentration factor (BCF REACH)	≈ 41 (20 °C; 0.12 mg/L; EPA OPP 165-4)
Partition coefficient n-octanol/water (Log Pow)	-0.32 – 0.7 (20 °C; (OECD 117 method))

### 12.4. Mobility in soil

[DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]	
Ecology - soil	No additional information available.

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	
Surface tension	73 mN/m (19.5 °C; 1 g/L; Test method EU A.5)
Ecology - soil	Low mobility (soil).

### 12.5. Results of PBT and vPvB assessment

[DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

Component	
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Other adverse effects : No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.

Product/Packaging disposal recommendations : Dirty containers cannot be handled as normal waste. Disposal must be done according to official regulations.

# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

European List of Waste (LoW) code : 16 05 06\* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals  
15 01 02 - plastic packaging

HP Code : HP12 - "Release of an acute toxic gas:" waste which releases acute toxic gases (Acute Tox. 1, 2 or 3) in contact with water or an acid

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

#### 14.6. Special precautions for user

##### Overland transport

Not applicable

##### Transport by sea

Not applicable

##### Air transport

Not applicable

##### Inland waterway transport

Not applicable

##### Rail transport

Not applicable

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on
3(b)	[DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x] ; reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
3(c)	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 0 %  
Other information, restriction and prohibition regulations : Take note of Directive 94/33/EC on the protection of young people at work.

### 15.1.2. National regulations

#### United Kingdom

National regulations : This safety data sheet is for informational purposes only and does not comply with national legal requirements without reference to a national distributor. The national distributor is responsible for a legally compliant safety data sheet.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:			
General revision.			
Section	Changed item	Change	Comments
	General revision		
3.2	Composition/information on ingredients	Modified	
8.1	Generic OEL data	Removed	
8.2	Skin and body protection	Modified	
15.1	National regulations	Modified	

Abbreviations and acronyms:	
ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level

# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

Data sources : MSDS of the supplier. European Chemicals Agency, <http://echa.europa.eu/>.

Department issuing data : KFT Chemieservice GmbH

specification sheet: Im Leuschnerpark 3  
D-64347 Griesheim

Phone: +49 6155-8981-400

Fax: +49 6155 8981-500

SDS Service: +49 6155 8981-522

Contact person : Christian Rank

Other information : Version/s 1.00-8.00 is/are not available in this language.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1A	Skin sensitisation, category 1A
H301	Toxic if swallowed.



# [DIL] [DIL A] [DIL G] [DIL M] [CONTROL -] [DIL 5x] [CTR] [CTR HIGH] [CTR LOW] [STD] [WASH SOLN 20x]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

<b>Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:</b>		
Skin Sens. 1A	H317	Calculation method

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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

Trade name : [SOLN STOP]

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Use of the substance/mixture : In vitro diagnostics

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet****Supplier**NovaTec Immundiagnostica GmbH  
Waldstraße 23 A6  
63128 Dietzenbach - Germany**Email competent person**

sds@kft.de

**1.4. Emergency telephone number**

Emergency number : +49 (0)6074-4876-0 (available only during business hours from Monday – Friday 08:30 a.m. – 12:00 a.m. and 1:00 p.m. – 4:30 p.m.)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

**Adverse physicochemical, human health and environmental effects**

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

**2.2. Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request.

**2.3. Other hazards**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

**Component**

sulphuric acid (7664-93-9)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII**SECTION 3: Composition/information on ingredients****3.1. Substances**

Not applicable

# [SOLN STOP]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sulphuric acid substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	(CAS-No.) 7664-93-9 (EC-No.) 231-639-5 (EC Index-No.) 016-020-00-8 (REACH-no) 01-2119458838-20-xxxx	< 3	Skin Corr. 1A, H314

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
sulphuric acid	(CAS-No.) 7664-93-9 (EC-No.) 231-639-5 (EC Index-No.) 016-020-00-8 (REACH-no) 01-2119458838-20-xxxx	( 5 ≤C < 15) Eye Irrit. 2, H319 ( 5 ≤C < 15) Skin Irrit. 2, H315 ( 15 ≤C < 100) Skin Corr. 1A, H314

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Take off contaminated clothing. Wash skin with plenty of water. Cover wounds with sterile bandage. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
First-aid measures after ingestion	: Rinse mouth out with water. Drink plenty of water. Do NOT induce vomiting. Call a doctor.

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

Symptoms/effects after skin contact	: May cause slight irritation.
Symptoms/effects after eye contact	: May cause eye irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Not combustible. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: No information available.

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

Hazardous decomposition products in case of fire	: release of harmful/irritant gases/vapours. Sulphur oxides.
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### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment	: Concerning personal protective equipment to use, see section 8.
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# [SOLN STOP]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: sand, saw dust. Wash away remainder with plenty of water. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.

Other information : Disposal must be done according to official regulations.

### 6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, cool, well-ventilated area.

Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

### 7.3. Specific end use(s)

In vitro diagnostics.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

sulphuric acid (7664-93-9)	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Sulphuric acid (mist)
IOEL TWA	0.05 mg/m <sup>3</sup>
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Sulphuric acid
WEL TWA (OEL TWA) [1]	0.05 mg/m <sup>3</sup> mist
Remark (WEL)	The mist is defined as the thoracic fraction
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

# [SOLN STOP]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### 8.1.4. DNEL and PNEC

<b>sulphuric acid (7664-93-9)</b>	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	0.1 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.05 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.003 mg/l
PNEC aqua (marine water)	0 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.002 mg/kg dwt
PNEC sediment (marine water)	0.002 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	8.8 mg/l

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Keep workplace clean and tidy as much as possible. Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

<b>Eye protection:</b>
Chemical goggles. EN 166

#### 8.2.2.2. Skin protection

<b>Skin and body protection:</b>
Wear suitable protective clothing. EN ISO 13688

<b>Hand protection:</b>					
Chemically resistant protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,35		EN ISO 374

<b>Other skin protection</b>
<b>Materials for protective clothing:</b>
Use protective clothing

#### 8.2.2.3. Respiratory protection

<b>Respiratory protection:</b>
In case of inadequate ventilation wear respiratory protection. Combination filter: ABEK. EN 143. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust.

# [SOLN STOP]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive properties	: Product is not explosive.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 1
Viscosity, kinematic	: Not available
Solubility	: Water: Miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Other properties	: This product is corrosive to metals
Additional information	: May be corrosive to metals.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available.

### 10.2. Chemical stability

No decomposition if stored normally.

# [SOLN STOP]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### 10.3. Possibility of hazardous reactions

Reacts violently with : Metals.

### 10.4. Conditions to avoid

heat.

### 10.5. Incompatible materials

metals.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified. (Based on available data, the classification criteria are not met) pH: 1
Additional information	: Repeated or prolonged skin contact may cause irritation
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 1
Additional information	: Slight eye irritant upon direct contact
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: Before neutralisation, the product may represent a danger to aquatic organisms.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

### sulphuric acid

NOEC (chronic)	0.15 mg/l (Tanytarsus dissimilis)
NOEC chronic algae	100 mg/l (72 h; Desmodesmus subspicatus; (OECD 201 method))

### 12.2. Persistence and degradability

#### [SOLN STOP]

Persistence and degradability	No additional information available.
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# [SOLN STOP]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

<b>sulphuric acid (7664-93-9)</b>	
Persistence and degradability	Not applicable for inorganic substances.

### 12.3. Bioaccumulative potential

<b>[SOLN STOP]</b>	
Bioaccumulative potential	No additional information available.

<b>sulphuric acid (7664-93-9)</b>	
Bioaccumulative potential	Not applicable for inorganic substances.

### 12.4. Mobility in soil

<b>[SOLN STOP]</b>	
Ecology - soil	No additional information available.

<b>sulphuric acid (7664-93-9)</b>	
Ecology - soil	Expected to be highly mobile in soil.

### 12.5. Results of PBT and vPvB assessment

<b>[SOLN STOP]</b>	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

<b>Component</b>	
sulphuric acid (7664-93-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Other adverse effects : No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
Product/Packaging disposal recommendations	: Dirty containers cannot be handled as normal waste. Disposal must be done according to official regulations.
European List of Waste (LoW) code	: 16 05 06* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals 15 01 02 - plastic packaging

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable



# [SOLN STOP]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	
Reference code	Applicable on
3(b)	sulphuric acid

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:			
General revision.			
Section	Changed item	Change	Comments
8.2	Skin and body protection	Modified	

# [SOLN STOP]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Abbreviations and acronyms:	
ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

Data sources : MSDS of the supplier. European Chemicals Agency, <http://echa.europa.eu/>.

Department issuing data : KFT Chemieservice GmbH  
specification sheet: Im Leuschnerpark 3  
D-64347 Griesheim

Phone: +49 6155-8981-400  
Fax: +49 6155 8981-500  
SDS Service: +49 6155 8981-522

Contact person : Christian Rank

Other information : This safety data sheet is for informational purposes only and does not comply with national legal requirements without reference to a national distributor. The national distributor is responsible for a legally compliant safety data sheet.

# [SOLN STOP]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
EUH210	Safety data sheet available on request.

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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

### 1.1. Product identifier

Trade name : [SUB TMB]

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

#### 1.2.1. Relevant identified uses

Use of the substance/mixture : Substrate solution for immunoassays

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

NovaTec Immundiagnostica GmbH  
Waldstraße 23 A6  
63128 Dietzenbach - Germany

#### Email competent person

sds@kft.de

### 1.4. Emergency telephone number

Emergency number : +49 (0)6074-4876-0 (available only during business hours from Monday – Friday 08:30 a.m. – 12:00 a.m. and 1:00 p.m. – 4:30 p.m.)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

### 2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Comments : Nonhazardous mixture

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : When in doubt or if symptoms are observed, get medical advice.

# [SUB TMB]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.
First-aid measures after skin contact	: Take off contaminated clothing. Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse thoroughly and plentifully with water, also under the eyelids.
First-aid measures after ingestion	: Rinse mouth out with water. Drink plenty of water. Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: No information available.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment	: Concerning personal protective equipment to use, see section 8.
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Only qualified personnel equipped with suitable protective equipment may intervene.

#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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### 6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Take up liquid spill into absorbent material, e.g.: sand, saw dust. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Wash away remainder with plenty of water. Notify authorities if product enters sewers or public waters.
Other information	: Disposal must be done according to official regulations.

### 6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
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# [SUB TMB]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Hygiene measures : Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry place. Store in a closed container. Containers which are opened should be properly resealed and kept upright to prevent leakage. Store in a well-ventilated place. Keep cool.

Storage temperature : 2 – 8 °C

Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

Storage area : Protect from light. Protect from moisture. Store away from heat.

### 7.3. Specific end use(s)

Follow the directions!.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

##### Appropriate engineering controls:

Keep workplace clean and tidy as much as possible. Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

##### 8.2.2.1. Eye and face protection

###### Eye protection:

Chemical goggles. EN 166

##### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing. EN ISO 13688

###### Hand protection:

In case of repeated or prolonged contact wear gloves. Chemically resistant protective gloves. EN 374. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber	6 (> 480 minutes)	>0,28 mm	No additional information available	EN ISO 374

# [SUB TMB]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Chemically resistant protective gloves	Natural rubber	6 (> 480 minutes)	> 0,22 mm	No additional information available	EN ISO 374
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### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Breathing apparatus with filter. Combination filter: ABEK. EN 143. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust. . In case of insufficient ventilation, wear suitable respiratory equipment

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: 101 °C
Flammability	: Not applicable
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 3.5 – 4
Viscosity, kinematic	: Not available
Solubility	: Water: SolubleMiscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1.011 g/cm <sup>3</sup>
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

# [SUB TMB]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### 9.2.2. Other safety characteristics

Other properties : No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available.

### 10.2. Chemical stability

No decomposition if stored normally.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Water, humidity. All heat sources, including direct sunlight.

### 10.5. Incompatible materials

Strong oxidizing agent. Metals. Metallic salts.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 3.5 – 4
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 3.5 – 4
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)



# [SUB TMB]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### 12.2. Persistence and degradability

<b>[SUB TMB]</b>	
Persistence and degradability	No additional information available.

### 12.3. Bioaccumulative potential

<b>[SUB TMB]</b>	
Bioaccumulative potential	No additional information available.

### 12.4. Mobility in soil

<b>[SUB TMB]</b>	
Ecology - soil	No additional information available.

### 12.5. Results of PBT and vPvB assessment

<b>[SUB TMB]</b>	
PBT: not relevant – no registration required	
vPvB: not relevant – no registration required	

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Other adverse effects : No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Disposal must be done according to official regulations. European waste catalogue. Do not discharge into drains or the environment. Do not dispose of with domestic waste.

Product/Packaging disposal recommendations : Dirty containers cannot be handled as normal waste. Disposal must be done according to official regulations. Recycle or dispose of in compliance with current legislation.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

# [SUB TMB]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Other information, restriction and prohibition regulations : A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis.

#### 15.1.2. National regulations

##### United Kingdom

National regulations : Take note of Directive 92/85/EC on the safety and health of pregnant workers at work.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Indication of changes:

General revision.

Section	Changed item	Change	Comments
8.2	Skin and body protection	Modified	

### Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level

# [SUB TMB]

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

Data sources : MSDS of the supplier.  
Department issuing data : KFT Chemieservice GmbH  
specification sheet: Im Leuschnerpark 3  
D-64347 Griesheim  
  
Phone: +49 6155-8981-400  
Fax: +49 6155 8981-500  
SDS Service: +49 6155 8981-522  
Contact person : Christian Rank

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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

**1.1. Product identifier**

Trade name : [WASH BUF 20x]

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

**1.2.1. Relevant identified uses**

Use of the substance/mixture : In vitro diagnostics

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

**Supplier**

NovaTec Immundiagnostica GmbH  
Waldstraße 23 A6  
63128 Dietzenbach - Germany

**Email competent person**

sds@kft.de

**1.4. Emergency telephone number**

Emergency number : +49 (0)6074-4876-0 (available only during business hours from Monday – Friday 08:30 a.m. – 12:00 a.m. and 1:00 p.m. – 4:30 p.m.)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Skin corrosion/irritation, Category 2 H315

Serious eye damage/eye irritation, Category 2 H319

Full text of H-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

Causes skin irritation. Causes eye irritation.

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

Precautionary statements (CLP) :

P280 - Wear protective gloves, eye protection, face protection.

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

**2.3. Other hazards**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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## Safety Data Sheet

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Component	
ethanol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
5-Bromo-5-nitro-1,3-dioxane (30007-47-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Comments : Aqueous solution of special active agents

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol substance with national workplace exposure limit(s) (GB)	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5	≥ 1 – < 2.5	Flam. Liq. 2, H225 Eye Irrit. 2, H319
5-Bromo-5-nitro-1,3-dioxane	(CAS-No.) 30007-47-7 (EC-No.) 250-001-7	≥ 0.1 – < 0.25	Acute Tox. 4 (Oral), H302 (ATE=455 mg/kg bodyweight) Skin Corr. 1, H314 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
ethanol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5	( 50 ≤C < 100) Eye Irrit. 2, H319
5-Bromo-5-nitro-1,3-dioxane	(CAS-No.) 30007-47-7 (EC-No.) 250-001-7	( 0.1 ≤C < 3) Eye Irrit. 2, H319 ( 0.1 ≤C < 5) Skin Irrit. 2, H315

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Take off contaminated clothing. Wash skin with plenty of water. Cover wounds with sterile bandage. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Drink plenty of water. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

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## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

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

Symptoms/effects after skin contact : Irritation.  
Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Not combustible. Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.  
Unsuitable extinguishing media : Strong water jet.

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

Hazardous decomposition products in case of fire : release of harmful/irritant gases/vapours. Nitrogen oxides.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.  
Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : Concerning personal protective equipment to use, see section 8.  
Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: sand, saw dust. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Wash away remainder with plenty of water.  
Other information : Disposal must be done according to official regulations.

### 6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.  
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

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according to Regulation (EC) No. 1907/2006 (REACH)

Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

### 7.3. Specific end use(s)

In vitro diagnostics.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

ethanol (64-17-5)	
United Kingdom - Occupational Exposure Limits	
Local name	Ethanol
WEL TWA (OEL TWA) [1]	1920 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	1000 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

5-Bromo-5-nitro-1,3-dioxane (30007-47-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	7.78 µg/kg bodyweight/day
Acute - systemic effects, inhalation	27.4 µg/m <sup>3</sup>
Long-term - systemic effects, dermal	7.78 µg/kg bodyweight/day
Long-term - systemic effects, inhalation	27.4 µg/m <sup>3</sup>
PNEC (Water)	
PNEC aqua (freshwater)	0.265 µg/L
PNEC aqua (marine water)	26.5 ng/l
PNEC aqua (intermittent, freshwater)	2.65 µg/L
PNEC aqua (intermittent, marine water)	0.265 µg/L
PNEC (Sediment)	
PNEC sediment (freshwater)	1.46 µg/kg dw
PNEC sediment (marine water)	0.146 µg/kg dw
PNEC (Soil)	
PNEC soil	0.136 µg/kg
PNEC (STP)	
PNEC sewage treatment plant	0.15 mg/l

ethanol (64-17-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	950 mg/m <sup>3</sup>

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<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	87 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	114 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	206 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l
PNEC aqua (intermittent, freshwater)	2.75 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	2.9 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.63 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	0.38 kg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	580 mg/l

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Keep workplace clean and tidy as much as possible. Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

<b>Eye protection:</b>
Wear closed safety glasses. EN 166

#### 8.2.2.2. Skin protection

<b>Skin and body protection:</b>
Wear suitable protective clothing. EN ISO 13688. EN 13034

<b>Hand protection:</b>					
Chemically resistant protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,35	3 (> 0.65)	EN ISO 374

#### 8.2.2.3. Respiratory protection



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### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Breathing apparatus with filter. ABEK-P2. EN 143. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust.

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7 – 7.4 (20 °C)
Viscosity, kinematic	: Not available
Solubility	: Water: Miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: Not determined
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

VOC content : < 1 %

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available.

#### 10.2. Chemical stability

No decomposition if stored normally.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

heat.

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

#### 5-Bromo-5-nitro-1,3-dioxane (30007-47-7)

LD50 oral rat	455 mg/kg bodyweight
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Skin corrosion/irritation : Causes skin irritation.  
pH: 7 – 7.4 (20 °C)  
Serious eye damage/irritation : Causes serious eye irritation.  
pH: 7 – 7.4 (20 °C)  
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)  
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)  
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)  
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)  
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)  
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

#### 5-Bromo-5-nitro-1,3-dioxane (30007-47-7)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
------------------------	--

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

#### 11.2. Information on other hazards

No additional information available

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

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Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

<b>5-Bromo-5-nitro-1,3-dioxane (30007-47-7)</b>	
LC50 - Fish [1]	0.68 mg/l (96h; Cyprinus carpio; (OECD 203 method))
EC50 - Crustacea [1]	1.32 mg/l (48 h; Daphnia magna; (OECD 202 method))
EC50 72h algae	0.265 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))
ErC50 algae	0.265 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))

### 12.2. Persistence and degradability

<b>[WASH BUF 20x]</b>	
Persistence and degradability	No additional information available.

<b>5-Bromo-5-nitro-1,3-dioxane (30007-47-7)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	0 % (7 d; (OECD-Methode 301D))

<b>ethanol (64-17-5)</b>	
Persistence and degradability	Readily biodegradable.
Biodegradation	84 % (20 d)

### 12.3. Bioaccumulative potential

<b>[WASH BUF 20x]</b>	
Partition coefficient n-octanol/water (Log Pow)	Not determined
Bioaccumulative potential	No additional information available.

<b>ethanol (64-17-5)</b>	
Partition coefficient n-octanol/water (Log Kow)	-0.35 (20 °C)
Bioaccumulative potential	Bioaccumulation unlikely.

### 12.4. Mobility in soil

<b>[WASH BUF 20x]</b>	
Ecology - soil	No additional information available.

<b>5-Bromo-5-nitro-1,3-dioxane (30007-47-7)</b>	
Surface tension	71 mN/m (20 °C; 1000 mg/L; (OECD 115 method))

<b>ethanol (64-17-5)</b>	
Surface tension	22.31 mN/m (20 °C)

### 12.5. Results of PBT and vPvB assessment

<b>[WASH BUF 20x]</b>	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

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Component	
ethanol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
5-Bromo-5-nitro-1,3-dioxane (30007-47-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Other adverse effects : No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
Product/Packaging disposal recommendations	: Dirty containers cannot be handled as normal waste. Disposal must be done according to official regulations.
European List of Waste (LoW) code	: 16 05 06* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals 15 01 02 - plastic packaging
HP Code	: HP4 - "Irritant — skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH)

### Rail transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Reference code	Applicable on
3(a)	ethanol
3(b)	[WASH BUF 20x] ; ethanol
40.	ethanol

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : < 1 %

#### 15.1.2. National regulations

##### United Kingdom

National regulations : This safety data sheet is for informational purposes only and does not comply with national legal requirements without reference to a national distributor. The national distributor is responsible for a legally compliant safety data sheet.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
	General revision		

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer

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IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

Data sources : MSDS of the supplier. European Chemicals Agency, <http://echa.europa.eu/>.

Department issuing data : KFT Chemieservice GmbH

specification sheet: Im Leuschnerpark 3

D-64347 Griesheim

Phone: +49 6155-8981-400

Fax: +49 6155 8981-500

SDS Service: +49 6155 8981-522

Contact person : Christian Rank

Other information : This safety data sheet is for informational purposes only and does not comply with national legal requirements without reference to a national distributor. The national distributor is responsible for a legally compliant safety data sheet.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.

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## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

<b>Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:</b>		
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.