

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 23.08.2017

Version 1.2

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

### 1.1 Product identifier

Catalogue No.	140000
Product name	Extran® MA 05 liquid, alkaline, phosphate-free concentrate

REACH Registration Number This product is a mixture. REACH Registration Number see section 3.

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

Identified uses	Laboratory cleaning For additional information on uses please refer to the Merck Chemicals portal ( <a href="http://www.merckgroup.com">www.merckgroup.com</a> ).
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### 1.3 Details of the supplier of the safety data sheet

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0
Responsible Department	EHS Manager *+61 (3) 8727 6300 * Monday through Friday, 8:00am to 5:00pm (EST)
Regional representation	Merck Pty. Limited ABN 80 001 239 818 Ground Floor, Building 1 885 Mountain Highway Bayswater VIC 3153 Australia <a href="http://www.merckmillipore.com">www.merckmillipore.com</a>

1.4 Emergency telephone number	+61 (3) 8727 6300 After hours: CHEMCALL +64 4 917 9888 Poisons Information Centre: 13 1126
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## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

Skin irritation, Category 2, H315

Eye irritation, Category 2, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

*Hazard pictograms*



*Signal word*

Warning

*Hazard statements*

H315 Causes skin irritation.

H319 Causes serious eye irritation.

*Precautionary statements*

Response

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.

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## Reduced labelling (≤125 ml)

*Hazard pictograms*



*Signal word*

Warning

## 2.3 Other hazards

None known.

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## SECTION 3. Composition/information on ingredients

Chemical nature Aqueous solution of inorganic and organic compounds.

### 3.1 Substance

Not applicable

### 3.2 Mixture

#### Hazardous components (REGULATION (EC) No 1272/2008)

*Chemical name (Concentration)*

CAS-No.	Registration number	Classification
polyethyleneglycoldodecyl ether with >5-20 mol ethylene oxide ( $\geq 0.25\%$ - $< 1\%$ )		
9002-92-0	*)	

Serious eye damage, Category 1, H318

Acute aquatic toxicity, Category 1, H400

sodium hydroxide ( $\geq 0.5\%$  -  $< 1\%$ )

*PBT/vPvB: Not applicable for inorganic substances*

1310-73-2 \*)

Corrosive to metals, Category 1, H290

Skin corrosion, Category 1A, H314

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4. First aid measures

### 4.1 Description of first aid measures

#### *General advice*

First aider needs to protect himself.

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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

Irritation and corrosion, Diarrhoea, Nausea, Vomiting, Stomach/intestinal disorders, Cough, Shortness of breath, collapse, death

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

No information available.

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## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

#### *Suitable extinguishing media*

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

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible.

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Ambient fire may liberate hazardous vapours.

## 5.3 Advice for firefighters

### *Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### *Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® OH -, Merck Art. No. 101596). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

Indications about waste treatment see section 13.

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## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

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### *Advice on safe handling*

Observe label precautions.

### *Hygiene measures*

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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

### *Requirements for storage areas and containers*

No aluminium, tin, or zinc containers.

No metal containers.

### *Storage conditions*

Tightly closed.

Recommended storage temperature see product label.

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

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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## **SECTION 8. Exposure controls/personal protection**

### **8.1 Control parameters**

Contains no substances with occupational exposure limit values.

### **8.2 Exposure controls**

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

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## Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

### *Eye/face protection*

Safety glasses

### *Hand protection*

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0.11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0.11 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

### *Other protective equipment*

protective clothing

### *Respiratory protection*

required when vapours/aerosols are generated.

Recommended Filter type: filter ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

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## Environmental exposure controls

Do not let product enter drains.

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## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	liquid
Colour	transparent to light yellow
Odour	odourless
Odour Threshold	Not applicable
pH	13 at 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.



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Relative vapour density	No information available.
Density	1.06 g/cm <sup>3</sup> at 20 °C
Relative density	No information available.
Water solubility	No information available.
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

## 9.2 Other data

none

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## SECTION 10. Stability and reactivity

### 10.1 Reactivity

See section 10.3

### 10.2 Chemical stability

Sensitivity to light

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

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## 10.4 Conditions to avoid

Strong heating.

## 10.5 Incompatible materials

Aluminium, brass, Metals, metal alloys, Zinc, Tin

## 10.6 Hazardous decomposition products

in the event of fire: See section 5.

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## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

##### *Acute oral toxicity*

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract., If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

##### *Acute inhalation toxicity*

Symptoms: burns of mucous membranes, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

##### *Acute dermal toxicity*

This information is not available.

##### *Skin irritation*

Mixture causes skin irritation.

##### *Eye irritation*

Mixture causes serious eye irritation.

##### *Sensitisation*

This information is not available.

##### *Germ cell mutagenicity*

This information is not available.

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## *Carcinogenicity*

This information is not available.

## *Reproductive toxicity*

This information is not available.

## *Teratogenicity*

This information is not available.

## *Specific target organ toxicity - single exposure*

This information is not available.

## *Specific target organ toxicity - repeated exposure*

This information is not available.

## *Aspiration hazard*

This information is not available.

## 11.2 Further information

After uptake:

Nausea, Vomiting, Diarrhoea, Stomach/intestinal disorders

Systemic effects:

collapse, death

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## Components

### *polyethyleneglycoldodecyl ether with >5-20 mol ethylene oxide*

#### *Acute oral toxicity*

LD50 Rat: 2,880 mg/kg

OECD Test Guideline 401

#### *Acute dermal toxicity*

LD50 Rat: > 2,000 mg/kg

(External MSDS)

#### *Skin irritation*

Rabbit

Result: slight irritation

OECD Test Guideline 404

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*Eye irritation*

Rabbit

Result: Eye irritation

OECD Test Guideline 405

*Germ cell mutagenicity*

*Genotoxicity in vivo*

Mutagenicity (mammal cell test): chromosome aberration.

Result: negative

(National Toxicology Program)

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(National Toxicology Program)

*Genotoxicity in vitro*

Ames test

Result: negative

(National Toxicology Program)

*sodium hydroxide*

*Skin irritation*

Rabbit

Result: Causes burns.

(External MSDS)

*Eye irritation*

Rabbit

Result: Irreversible effects on the eye

(ECHA)

*Sensitisation*

Patch test: human

Result: negative

(ECHA)

*Germ cell mutagenicity*

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*Genotoxicity in vitro*

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(Lit.)

Ames test

Result: negative

(IUCLID)

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## SECTION 12. Ecological information

### Mixture

#### 12.1 Toxicity

No information available.

#### 12.2 Persistence and degradability

No information available.

#### 12.3 Bioaccumulative potential

No information available.

#### 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

Substance(s) in the mixture do(es) not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII, or a PBT/vPvB assessment was not conducted.

#### 12.6 Other adverse effects

*Additional ecological information*

Discharge into the environment must be avoided.

### Components

*polyethyleneglycoldodecyl ether with >5-20 mol ethylene oxide*

*Toxicity to fish*

LC50 Danio rerio (zebra fish): 0.1 - 1 mg/l; 96 h

(External MSDS)

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*Toxicity to daphnia and other aquatic invertebrates*

EC50 Daphnia magna (Water flea): 0.1 - 1 mg/l; 48 h  
(External MSDS)

*Toxicity to algae*

IC50 Desmodesmus subspicatus (green algae): < 1 mg/l; 72 h  
(External MSDS)

*Toxicity to bacteria*

BRINGMANN-KÜHN-TEST EC10 Pseudomonas putida: 3.2 mg/l; 16 h

*Biodegradability*

> 70 %; 28 d  
OECD Test Guideline 301A  
Readily biodegradable

## *sodium hydroxide*

*Toxicity to fish*

LC50 Gambusia affinis (Mosquito fish): 125 mg/l; 96 h  
(External MSDS)

*Toxicity to daphnia and other aquatic invertebrates*

EC50 Ceriodaphnia (water flea): 40.4 mg/l; 48 h  
(ECHA)

*Toxicity to bacteria*

EC50 Photobacterium phosphoreum: 22 mg/l; 15 min  
(External MSDS)

*Biodegradability*

The methods for determining the biological degradability are not applicable to inorganic substances.

PBT/vPvB: Not applicable for inorganic substances

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## SECTION 13. Disposal considerations

### *Waste treatment methods*

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## SECTION 14. Transport information

### Land transport (ADR/RID)

14.1 UN number	UN 1824
14.2 Proper shipping name	SODIUM HYDROXIDE SOLUTION
14.3 Class	8
14.4 Packing group	III
14.5 Environmentally hazardous	--
14.6 Special precautions for user	yes
Tunnel restriction code	E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

14.1 UN number	UN 1824
14.2 Proper shipping name	SODIUM HYDROXIDE SOLUTION
14.3 Class	8
14.4 Packing group	III
14.5 Environmentally hazardous	--

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**14.6 Special precautions for user** no

## Sea transport (IMDG)

**14.1 UN number** UN 1824  
**14.2 Proper shipping name** SODIUM HYDROXIDE SOLUTION  
**14.3 Class** 8  
**14.4 Packing group** III  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
EmS F-A S-B

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not relevant

## Other regulations

Hazchem Code 2R

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## SECTION 15. Regulatory information

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

#### *National legislation*

Storage class 10 - 13

Standard for the Uniform S6

Scheduling of Medicines and

Poisons - Poisons Schedule

Number:

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.



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## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.

### Training advice

Provide adequate information, instruction and training for operators.

### Labelling

#### *Hazard pictograms*



#### *Signal word*

Warning

#### *Hazard statements*

H315 Causes skin irritation.

H319 Causes serious eye irritation.

#### *Precautionary statements*

##### Response

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.

P313 Get medical advice/ attention.

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## **Key or legend to abbreviations and acronyms used in the safety data sheet**

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

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*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*