

**BONDAN ST01 – Component B**

Revision date: 23.02.2021  
Version: 1.003



**1. Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

Trade name BONDAN ST01 – Component B

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

General use Adhesive.

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

Drei Bond GmbH · Carl-Zeiss-Ring 13 · 85737 Ismaning  
t +49 (0)89 96 24 27-0 · f +49 (0)89 96 24 27-19  
Department responsible for information: [info@bondan.de](mailto:info@bondan.de) · t +49 89 962427-0

**1.4 Emergency telephone number**

Drei Bond GmbH	Tel. +49 (0)89 96 24 27-0
Carl-Zeiss-Ring 13	During office hours
85737 Ismaning	Mo – Do 9:00 am – 05:00 pm
	Fr 8:00 am – 3:00 pm

**2 Hazards identification**

**2.1 Classification of the substance or mixture**

Classification according to EC regulation 1272/2008 (CLP)

Physical hazards Flam. Liq. 2 - H225

Health hazards  
Skin Irrit. 2 - H315  
Eye Irrit. 2 - H319  
Skin Sens. 1 - H317  
STOT SE 3 - H335

Environmental hazards Not Classified

## 2.2 Label elements

### Labelling CLP:



Signal word

**Danger**

### Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

### Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352a	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.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Special labelling

Contains: METHYL METHACRYLATE, 2-HYDROXYETHYL METHACRYLATE

Supplementary precautionary statements

P243	Take action to prevent static discharges.
P261	Avoid breathing vapour/ spray.
P264	Wash contaminated skin thoroughly after handling.
P273	Avoid release to the environment.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/ attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

### 2.3 Other hazards

None under normal conditions. This substance is not classified as PBT or vPvB according to current EU criteria.

## 3 Composition/information on ingredients

### 3.2 Mixtures

Hazardous ingredients

Ingredient	Designation	Content	Classification
CAS number: 80-62-6 EC number: 201-297-1 REACH registration number: 01-2119452498-28-XXXX	METHYL METHACRYLATE	30 - 60 %	Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 STOT SE 3 - H335
CAS number: 868-77-9 EC number: 212-782-2 REACH registration number: 01-2119490169-29-XXXX	2-HYDROXYETHYL METHACRYLATE	10 - 30 %	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

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CAS number: 34562-31-7 EC number: 252-091-3 REACH registration number: REACH registration exemption – < 1 tonne	3,5-DIETHYL-1,2-DIHYDRO- 1-PHENYL-2-PROPYL- PYRIDINE	1 - 5 %	Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319
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The full text for all hazard statements is displayed in Section 16.

## 4 First aid measures

### 4.1 Description of first aid measures

Inhalation	Move the exposed person to fresh air. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. If symptoms develop, obtain medical attention.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Get medical attention if any discomfort continues.

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

Inhalation	Irritating to respiratory system.
Skin contact	Skin irritation, mild dermatitis, allergic skin rash.
Eye contact	Irritating and may cause redness and pain.

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

Notes for the doctor	No specific recommendations. Treat symptomatically.
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## **5 Fire-fighting measures**

### **5.1 Extinguishing media**

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
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Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
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### **5.2 Special hazards arising from the substance or mixture**

Specific hazards	Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.
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Hazardous combustion Products	Burning produces irritating, toxic and obnoxious fumes. Carbon monoxide, carbon dioxide, and unknown hydrocarbons. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.
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### **5.3 Advice for firefighters**

#### Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## **6 Accidental release measures**

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

Personal precautions	Eliminate all sources of ignition. Ensure adequate ventilation of the working area. Do not breathe vapour. Wear protective clothing as described in Section 8 of this safety data sheet.
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## 6.2 Environmental precautions

Do not discharge into drains or watercourses or onto the ground.

## 6.3 Methods and material for containment and cleaning up

Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal.

## 6.4 Reference to other sections

For personal protection, see Section 8. For waste disposal, see section 13.

# 7 Handling and storage

## 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Use in a well ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed, in a cool, well ventilated place. Keep container dry. Store in closed original container at temperatures between 2°C and 7°C.

## 7.3 Specific end use(s)

Adhesive

# 8 Exposure controls/personal protection

## 8.1 Control parameters

### Occupational exposure limit values

#### METHYL METHACRYLATE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 208 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 100 ppm 416 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

**METHYL METHACRYLATE (CAS: 80-62-6)**

DNEL

Workers, Industry/Professional - Inhalation; Long term : 208 mg/m<sup>3</sup>

Workers, Industry/Professional - Dermal; Long term : 13.67 mg/kg/day

Workers, Industry/Professional - Inhalation; Short term : 416 mg/m<sup>3</sup>

PNEC

Workers, Industry/Professional - Water; Long term <0.94 mg/l

**2-HYDROXYETHYL METHACRYLATE (CAS: 868-77-9)**

DNEL

Workers, Industry - Inhalation; Long term systemic effects: 4.9 mg/m<sup>3</sup>

Workers, Industry - Dermal; Long term systemic effects: 1.3 mg/kg/day

PNEC

Workers, Industry - Water; Long term 0.482 mg/l

Workers, Industry - Soil; Long term 0.476 mg/kg

Workers, Industry - STP; Long term 10 mg/l

Workers, Industry - Fresh water; 3.79 mg/kg

**3,5-DIETHYL-1,2-DIHYDRO-1-PHENYL-2-PROPYLPYRIDINE (CAS: 34562-31-7)**

DNEL

There is no data available.

PNEC

There is no data available.

8.2 Exposure controls

Protection equipment





Appropriate engineering controls	Normal (mechanical) room ventilation should be adequate for small volumes. For higher volume activities, or if needed for worker comfort, local mechanical exhaust should be provided.
Eye/face protection	Use approved safety goggles or face shield. Personal eye protection should conform to EN 166.
Hand protection	It is recommended that chemical-resistant, impervious gloves are worn. Gloves should conform to EN 374. For exposure up to 4 hours, wear gloves made of the following material: Nitrile rubber. Thickness: $\geq 0.4$ mm The selected gloves should have a breakthrough time of at least 0.5 hours. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber. Thickness: $\geq 0.4$ mm The selected gloves should have a breakthrough time of at least 8 hours. The breakthrough time for any glove material may be different for different glove manufacturers. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.
Other skin and body protection	Uniforms, coveralls, or a lab coat should be worn.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Wash promptly if skin becomes contaminated. Use of good industrial hygiene practices is required.
Respiratory protection	Ensure adequate ventilation of the working area. Respiratory protection may be required if excessive airborne contamination occurs. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Organic vapour filter, Type A (EN14387).





## 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	paste
Colour	off-white
Odour	pungent, acrylic
Odour threshold	not available
pH	not relevant
Melting point	not available
Initial boiling point and range	≈ 100 °C
Flash point	11 °C
Evaporation rate	not available
Upper/lower flammability or explosive limits	not available
Vapour pressure	≈ 28 mm Hg
Vapour density	≈ 3.46
Relative density	1.0
Solubility(ies)	Insoluble in water. Soluble in the following materials: Organic solvents.
Auto-ignition temperature	not available
Viscosity	≈ 45000 mPa·s @ 23°C, thixotropic
Oxidising properties	not available

## 10 Stability and reactivity

### 10.1 Reactivity

The following materials may react with the product: Strong oxidising agents, strong acids, strong alkalis

### 10.2 Chemical stability

Stable at normal ambient temperatures.

### 10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, no hazardous reactions will occur.



#### 10.4 Conditions to avoid

Take precautionary measures against static discharges. Avoid heat, flames and other sources of ignition.

#### 10.5 Incompatible materials

strong oxidising agents, strong acids, strong alkalis

#### 10.6 Hazardous decomposition products

Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

### 11 Toxicological information

#### 11.1 Information on toxicological effects

##### Toxicological effects

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

##### Skin sensitisation

##### Skin sensitization

May cause sensitisation by skin contact.

##### Aspiration hazard

##### Aspiration hazard

None under normal conditions.

##### Inhalation

May cause respiratory system irritation.

##### Skin contact

Irritating to skin.

##### Eye contact

Irritating and may cause redness and pain.

Toxicological effects on ingredients**METHYL METHACRYLATE**Acute toxicity - oralAcute toxicity oral (LD<sub>50</sub> mg/kg) 5,000.0

Species Rat

Acute toxicity - dermalAcute toxicity dermal (LD<sub>50</sub> mg/kg) 5,000.0

Species Rat

Acute toxicity - inhalation

Acute toxicity inhalation 29.8

(LC<sub>50</sub> vapours mg/l)

Species Rat

Skin corrosion/irritation

Skin corrosion/irritation Not irritating. Prolonged skin contact may cause temporary irritation.

Serious eye damage/irritation

Serious eye damage/irritation not irritating

Respiratory sensitisation

Respiratory sensitisation Mouse: Sensitising

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Sensitising

Germ cell mutagenicity

Genotoxicity - in vitro inconclusive

Genotoxicity - in vivo

This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity CMR: no

IARC carcinogenicity

IARC Group 3: Not classifiable as to its carcinogenicity to humans.

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Reproductive toxicity

Reproductive toxicity - fertility	No evidence of reproductive toxicity in animal studies.
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Reproductive toxicity - development	No evidence of reproductive toxicity in animal studies. non-teratogenic, not embryotoxic
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Specific target organ toxicity - single exposure

STOT - single exposure	respiratory tract Irritation
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Specific target organ toxicity - repeated exposure

STOT - repeated exposure	No specific target organs known.
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Aspiration hazard

Aspiration hazard	Based on available data the classification criteria are not met.
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**2-HYDROXYETHYL METHACRYLATE**Acute toxicity - oral

Acute toxicity oral (LD <sub>50</sub> mg/kg)	5,000.0
Species	Rat

Acute toxicity - dermal

Acute toxicity dermal (LD <sub>50</sub> mg/kg)	5,000.0
Species	Rabbit

Acute toxicity - inhalation

Notes (inhalation LC <sub>50</sub> )	no information available
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Skin corrosion/irritation

Animal data	Erythema/eschar score: Very slight erythema - barely perceptible (1). Not irritating.
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Serious eye damage/irritation

Serious eye damage/irritation	moderately irritating
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Respiratory sensitisation

Respiratory sensitization	no information available
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Skin sensitisation

Skin sensitisation

Guinea pig maximization test (GPMT) - Guinea pig:  
SensitisingGerm cell mutagenicity

Genotoxicity - in vitro

Conclusive data but not sufficient for classification.

Genotoxicity - in vivo

Chromosome aberration: Negative

Carcinogenicity

Carcinogenicity

No specific test data are available.

Reproductive toxicity

Reproductive toxicity - fertility

Screening - NOAEL  $\geq$  1000 mg/kg/day, Oral, Rat F1Reproductive toxicity -  
developmentDevelopmental toxicity: - NOAEL:  $\geq$  1000 mg/kg/day,  
Oral, RatSpecific target organ toxicity - single exposure

STOT - single exposure

No specific test data are available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure

No specific test data are available.

Aspiration hazard

Aspiration hazard

not applicable

**3,5-DIETHYL-1,2-DIHYDRO-1-PHENYL-2-PROPYLPYRIDINE**Acute toxicity - oralAcute toxicity oral (LD<sub>50</sub> mg/kg)

500.1

Species

Rat

Acute toxicity - dermalAcute toxicity dermal (LD<sub>50</sub> mg/kg)

1,000.1

Species

Rabbit

Acute toxicity - inhalationNotes (inhalation LC<sub>50</sub>)

no information available

Skin corrosion/irritation

Skin corrosion/irritation moderately irritating

Serious eye damage/irritation

Serious eye damage/irritation moderately irritating

Respiratory sensitisation

Respiratory sensitization May cause respiratory system irritation.

Skin sensitisation

Skin sensitisation No specific test data are available.

Germ cell mutagenicity

Genotoxicity - in vitro No specific test data are available.

Carcinogenicity

Carcinogenicity No specific test data are available.

Reproductive toxicity

Reproductive toxicity - fertility No specific test data are available.

Specific target organ toxicity - single exposure

STOT - single exposure No specific test data are available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No specific test data are available.

Aspiration hazard

Aspiration hazard No specific test data are available.

**12 Ecological information**

Ecotoxicity The product is not expected to be hazardous to the environment.

**12.1 Toxicity**

Toxicity The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC.



Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

#### Ecological information on ingredients

##### **METHYL METHACRYLATE**

###### Acute aquatic toxicity

Acute toxicity - fish	LC <sub>50</sub> , 96 hours: > 79 mg/l, Oncorhynchus mykiss (Rainbow trout)
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Acute toxicity - aquatic Invertebrates	EC <sub>50</sub> , 48 hours: 69 mg/l, Daphnia magna
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Acute toxicity - aquatic plants	NOEC, 72 hours: > 110 mg/l, Selenastrum capricornutum EC <sub>50</sub> , 72 hours: > 100 mg/l, Selenastrum capricornutum
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Acute toxicity - microorganisms	EC <sub>20</sub> , 30 minutes: 150 - 200 mg/l, Activated sludge
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###### Chronic aquatic toxicity

Chronic toxicity - fish early life stage	NOEC, 35 days: 9.4 mg/l, Danio rerio (Zebrafish)
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Chronic toxicity - aquatic Invertebrates	NOEC, 21 days: 37 mg/l, Daphnia magna
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##### **2-HYDROXYETHYL METHACRYLATE**

###### Acute aquatic toxicity

Acute toxicity - fish	LC <sub>50</sub> , 96 hours: > 100 mg/l, Oryzias latipes (Red killifish)
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Acute toxicity - aquatic Invertebrates	EC <sub>50</sub> , 48 hours: 380 mg/l, Daphnia magna
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Acute toxicity - aquatic plants	EC <sub>50</sub> , 72 hours: 836 mg/l, Selenastrum capricornutum NOEC, 72 hours: 400 mg/l, Selenastrum capricornutum
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Acute toxicity - microorganisms	EC <sub>50</sub> , 16 hours: > 3000 mg/l, Pseudomonas fluorescens
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Chronic aquatic toxicity

Chronic toxicity - aquatic  
invertebrates

NOEC, 21 days: 24.1 mg/l, Daphnia magna

12.2. Persistence and degradability

The product is not readily biodegradable.

Ecological information on ingredients

**METHYL METHACRYLATE**

Biodegradation

Water - Degradation 94%: 14 days

**2-HYDROXYETHYL METHACRYLATE**

Biodegradation

Water - Degradation 84%: 28 days

12.3 Bioaccumulative potential

Bioaccumulative potential

There is no data available on bioaccumulation.

Ecological information on ingredients

**2-HYDROXYETHYL METHACRYLATE**

Bioaccumulative potential

BCF: 1.34 - 1.54

12.4 Mobility in soil

There is no data available. The product has poor water-solubility.

Ecological information on ingredients

**2-HYDROXYETHYL METHACRYLATE**

Adsorption/desorption  
coefficient

Water - Koc: 42.7 @ 20°C





**12.5 Results of PBT and vPvB assessment**

This substance is not classified as PBT or vPvB according to current EU criteria.

**12.6 Other adverse effects**

none known

**13 Disposal considerations**

**13.1 Waste treatment methods**

General information

Waste disposal should be in accordance with existing Community, National and local regulations Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

Disposal methods

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Waste class

08 04 09\* waste adhesives and sealants containing organic solvents or other dangerous substances.

**14 Transport information**

**14.1 UN number**

1993

**14.2 UN proper shipping name**

FLAMMABLE LIQUID, N.O.S. (contains Methylmethacrylate)

**14.3 Transport hazard class(es)**

3

Transport labels



14.4 Packing group

II

14.5 Environmental hazards

Environmentally hazardous substance/marine pollutant: No

14.6 Special precautions for user

EmS F-E, S-E

Tunnel restriction code (D/E)

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

**15 Regulatory information**

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

National regulations

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

EU legislation Regulation (EC)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).



COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Guidance

Workplace Exposure Limits EH40.

CHIP for everyone HSG228.

Safety Data Sheets for Substances and Preparations.

Approved Classification and Labelling Guide (Sixth edition) L131.

**15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has not been carried out.

**16 Other information**

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Supersedes date: 18.03.2020

**Wording of the hazard statements under paragraph 2 and 3:**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

**Department issuing data sheet:**

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

*(The data on the hazardous ingredients were taken from the most recent safety data sheet from the supplier.)*