

# Material Safety Data Sheet

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

**Product Name** : Acryl/Bis solution (29: 1), 40%(w/v)

**Product No.** : F010339

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## 2 Hazards identification

### 2.1 Classification of the substance or mixture

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

Acute toxicity, Category 4, Oral, H302  
Acute toxicity, Category 4, Inhalation, H332  
Skin irritation, Category 2, H315  
Eye irritation, Category 2, H319  
Skin sensitisation, Category 1, H317  
Germ cell mutagenicity, Category 1B, H340  
Carcinogenicity, Category 1B, H350  
Reproductive toxicity, Category 2, H361f  
Specific target organ toxicity - repeated exposure, Category 1, Oral, Testes,  
Peripheral nervous system, H372

#### Classification (67/548/EEC or 1999/45/EC)

T	Toxic	R25 - 48/23/24/25
Carc.Cat.2	Carcinogenic Category 2	R45
Mut.Cat.2	Mutagenic Category 2	R46
Xn	Harmful	R20/21
Repr.Cat.3	Toxic to Reproduction Category 3	R62
	Sensitising	R43
Xi	Irritant	R36/38

### 2.2 GHS label elements

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

Hazard pictograms



Signal word

Danger

Hazard statements

H340 May cause genetic defects. H350 May cause cancer.

H302 + H332 Harmful if swallowed or if inhaled H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H361f Suspected of damaging fertility.

H372 Causes damage to organs (Testes, Peripheral nervous system) through prolonged or repeated exposure.

Precautionary statements

Prevention

P201 Obtain special instructions before use. P280 Wear protective gloves.

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.

P314 Get medical advice/ attention if you feel unwell.

**Contains: acrylamide**

### 2.3 Other hazards

None known.

## 3 Composition/information on ingredients

### 3.1 Mixtures

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

acrylamide ( $\geq 25\%$  -  $< 50\%$ )

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

Chemical Name (Concentration)		
CAS-No.	Registration number	Classification
acrylamide ( $\geq 25\%$ - $< 50\%$ )		
Substance does not meet the criteria for PBT or vPvB according to Regulation		

(EC) No 1907/2006, Annex XIII.		
79-06-1	01-2119463260-48-XXXX	Acute toxicity, Category 3, H301 Acute toxicity, Category 4, H332 Acute toxicity, Category 4, H312 Skin irritation, Category 2, H315 Eye irritation, Category 2, H319 Skin sensitisation, Category 1, H317 Germ cell mutagenicity, Category 1B, H340 Carcinogenicity, Category 1B, H350 Reproductive toxicity, Category 2, H361f Specific target organ toxicity - repeated exposure, Category 1, H372
N,N'-methylenediacrylamide ( $\geq 1\%$ - $< 10\%$ )		
110-26-9	*	Acute toxicity, Category 4, H302

\*) 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.

## 4 First aid measures

### 4.1 Description of first aid measures

After inhalation: fresh air. If breathing stops: immediately apply artificial respiration, if necessary oxygen. Immediately call in physician.

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

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

After swallowing: immediately make victim drink water. Consult a physician.

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

irritant effects, Allergic reactions, ataxia (impaired locomotor coordination), CNS disorders, muscular weakness, Tremors, Causes epileptic seizures.

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

No information available.

### **5 Firefighting measures**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Water, Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

Unsuitable extinguishing media

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

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

Mixture with combustible ingredients.

Development of hazardous combustion gases or vapours possible in the event of fire.

Fire may cause evolution of:

nitrogen oxides, Hydrogen cyanide (hydrocyanic acid)

#### **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.

#### **5.4 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.

### **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 material (e.g. Chemisorb®). Dispose of properly. Clean up affected area.

#### **6.4 Reference to other sections**

Indications about waste treatment see section 13.

## 7 Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

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

Storage conditions

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons. Protected from light.

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

## 8 Exposure controls/personal protection

### 8.1 Control parameters

Components

Basis	Value	Threshold limits	Remarks
acrylamide (79-06-1)			
ELV (IE)	Time Weighted Average(TWA):	0.03 mg/m <sup>3</sup>	
	Skin designation:		Can be absorbed through the skin.
acrylamide (79-06-1)			
Worker DMEL, longterm	Systemic effects	inhalation	0.09 mg/m <sup>3</sup>
Worker DMEL, longterm	Systemic effects	dermal	0.1 mg/kg Body weight
Worker DMEL, acute	Local effects	inhalation	120 mg/m <sup>3</sup>
Worker DMEL, acute	Systemic effects	inhalation	120 mg/m <sup>3</sup>
Worker DMEL, acute	Systemic effects	dermal	3 mg/kg Body weight

## **8.2 Exposure controls**

### **Appropriate engineering controls**

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

See section 7.1.

### **Personal protective equipment**

#### **Eye/face protection**

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

splash contact:

Glove material: Viton (R)

Glove thickness: 0.70 mm

Break through time: > 120 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 890 Vitoject® (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

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 A-(P3)

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

### **Control of environmental exposure**

Do not empty into drains.

## **9 Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

a) Appearance	Form: liquid
b) Odour	odourless
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient: noctanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

**9.2 Other safety information**

No data available

**10 Stability and reactivity****10.1 Reactivity**

Applicable to the dissolved substance:

highly reactive

tends to polymerise

**10.2 Chemical stability**

Sensitivity to light.

**10.3 Possibility of hazardous reactions**

Violent polymerisation may be caused by:

Peroxides, Metals, Acids, Bases, strong oxidising agents

Exothermic reaction with:

alkalines, sulphuric acid

#### **10.4 Conditions to avoid**

Heating (decomposition)

#### **10.5 Incompatible materials**

No data available

#### **10.6 Hazardous decomposition products**

In the event of fire: see section 5

## **11 Toxicological information**

### **11.1 Information on toxicological effects**

#### **Acute toxicity**

Acute toxicity estimate: 470.11 mg/kg

Calculation method

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

absorption

Acute inhalation toxicity

Acute toxicity estimate: 29.92 mg/l; vapour

Calculation method

Acute toxicity estimate: 4.35 mg/l; 4 h ; dust/mist

Calculation method

Symptoms: Possible damages:, mucosal irritations

absorption

Acute dermal toxicity

Acute toxicity estimate : > 2,000 mg/kg

Calculation method

#### **Skin corrosion/irritation**

Mixture causes skin irritation

#### **Serious eye damage/eye irritation**

Mixture causes serious eye irritation

#### **Respiratory or skin sensitisation**

Mixture may cause an allergic skin reaction

#### **Germ cell mutagenicity**

No data available

#### **Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.



**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: Not available

## **12 Ecological toxicity**

**Mixture**

**12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data 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**

acrylamide

Toxicity to daphnia and other aquatic invertebrates

flow-through test EC50 Daphnia magna (Water flea): 98 mg/l; 48 h

US-EPA

Toxicity to algae

static test IC50 Pseudokirchneriella subcapitata (green algae): 67.7 mg/l; 72 h

OECD Test Guideline 201

(50% solution)

Growth inhibition NOEC *Selenastrum capricornutum* (green algae): 16 mg/l

(External MSDS)

Toxicity to bacteria

EC50 *Photobacterium phosphoreum*: 13,500 mg/l

(IUCLID)

Toxicity to fish (Chronic toxicity)

NOEC *Cyprinus carpio* (Carp): 5 mg/l; 28 d

(ECHA)

Biodegradability

100 %; 28 d; aerobic

OECD Test Guideline 301D

Readily biodegradable

Partition coefficient: n-octanol/water

log Pow: -0.78

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

N,N'-methylenediacrylamide

Toxicity to fish

LC50 *Oncorhynchus mykiss* (rainbow trout): 100 mg/l; 96 h

Partition coefficient: n-octanol/water

log Pow: -0.069

## 13 Disposal considerations

### 13.1 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.

Notice Directive on waste 2008/98/EC

## 14 Transport information

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

**14.2 UN proper shipping name**

ADR/RID: Not	IMDG: Not	IATA: Not
dangerous	dangerous	dangerous
goods	goods	goods

**14.3 Transport hazard class(es)**

ADR/RID: -	IMDG: -	IATA: -
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**14.4 Packaging group**

ADR/RID: -	IMDG: -	IATA: -
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**14.5 Environmental hazards**

ADR/RID: -	IMDG: -	IATA: -
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**15 Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

**16 Other information**

Further information: no limited for paper copy, just for internal uses.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sangon Biotech shall not be held liable for any damage resulting from handling or from contact with the above products.