

Power Weld 5010, 5410, 2410 Part B

Date printed 25.11.2014, Revision 25.11.2014

Version 01

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

1.1 Product identifier

Power Weld 5010, 5410, 2410 Part B

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

1.2.1 Relevant uses

Adhesive

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company Voelkel Industrie Produkte GmbH

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Address enquiries to

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1.4 Emergency telephone number

Advisory body +49 (0)89-19240 (24h) (english)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Flam. Liq. 2: H225 Highly flammable liquid and vapour.

Skin Irrit. 2: H315 Causes skin irritation.

Skin Sens. 1: H317 May cause an allergic skin reaction. STOT SE 3: H335 May cause respiratory irritation.

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

2.1.2 Classification according to Directive 67/548/EEC or 1999/45/EC

F, Highly flammable - R 11: Highly flammable.

Xi, Irritant - R 37/38: Irritating to respiratory system and skin. Sensitizing. - R 43: May cause sensitisation by skin contact.

R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.



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2.2 Label elements

The product is classified and required to be labelled in accordance with EC-Directives

Labelling according to Regulation (EC) 1272/2008

Hazard pictograms

Signal word DANGER

Contains: Methyl methacrylate

Hazard statements H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P261 Avoid breathing vapours/spray. P280 Wear protective gloves.

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

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to in accordance with local/regional/national/international

regulation.

2.3 Other hazards

Other hazards none

SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

| Range [%] | Substance |
|-----------|--|
| 70 - 90 | Methyl methacrylate |
| | CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-XXXX |
| | GHS/CLP: Flam. Liq. 2: H225 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - STOT SE 3: H335 |
| | EEC: F-Xi, R 11-37/38-43 |
| 1 - <10 | 3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine |
| | CAS: 34562-31-7, EINECS/ELINCS: 252-091-3 |
| | GHS/CLP: Acute Tox. 4: H302 H312 - Eye Irrit. 2: H319 - Skin Irrit. 2: H315 |
| | EEC: Xn-Xi, R 21/22-36/38 |
| 0,25 - <1 | 2,6-di-tert-butyl-p-cresol |
| | CAS: 128-37-0, EINECS/ELINCS: 204-881-4 |
| | GHS/CLP: Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M = 1 |
| | EEC: N, R 50/53 |

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.

For full text of H-statements and R-phrases: see SECTION 16.



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SECTION 4: First aid measures

4.1 Description of first aid measures

General information Remove contaminated soaked clothing immediately and dispose of safely.

Inhalation Ensure supply of fresh air.

In the event of symptoms seek for medical treatment.

Skin contact In case of contact with skin wash off immediately with soap and water.

Consult a doctor if skin irritation persists.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Ingestion Consult a doctor immediately.

Do not induce vomiting.

Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Forward this sheet to the doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Carbon dioxide.

Water spray jet. Dry powder. Foam.

Extinguishing media that must not

be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within

the local regulations.

Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.

Ensure adequate ventilation.

High risk of slipping due to leakage/spillage of product.

Use personal protective clothing.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.

Take up residues with absorbent material (e.g. sand).

Dispose of absorbed material in accordance within the regulations.



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6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.

Vacuuming in situ required.

Vapours can form an explosive mixture with air.

Keep away from all sources of ignition - Refrain from smoking.

Ignitable mixtures can be formed in the empty container.

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

Do not eat, drink or smoke when using this product. After worktime and before work breaks the affected skin areas must be thoroughly cleaned.

Use barrier skin cream.

Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Do not store together with oxidizing agents.

Keep container tightly closed.

Keep container in a well-ventilated place.

Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2



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SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

| - | |
|-----------|--|
| Range [%] | Substance |
| 70 - 90 | Methyl methacrylate |
| | CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-XXXX |
| | Long-term exposure: 50 ppm, 208 mg/m³ |
| | Short-term exposure (15-minute): 100 ppm, 416 mg/m³ |
| 0,25 - <1 | 2,6-di-tert-butyl-p-cresol |
| | CAS: 128-37-0, EINECS/ELINCS: 204-881-4 |
| | Long-term exposure: 10 mg/m³ |
| | |

Ingredients with occupational exposure limits to be monitored (EU)

| - | |
|-----------|--|
| Range [%] | Substance / EC LIMIT VALUES |
| 70 - 90 | Methyl methacrylate |
| | CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-XXXX |
| | Eight hours: 50 ppm |
| | Short-term (15-minute): 100 ppm |

DNEL

| Range [%] | Substance |
|-----------|---|
| 70 - 90 | Methyl methacrylate, CAS: 80-62-6 |
| | Industrial, dermal, Acute - local effects: 1,5 mg/cm². |
| | Industrial, dermal, Long-term - local effects: 1,5 mg/cm². |
| | Industrial, dermal, Long-term - systemic effects: 13,67 mg/kg bw/d. |
| | Industrial, inhalative, Long-term - local effects: 208 mg/m³. |
| | Industrial, inhalative, Long-term - systemic effects: 208 mg/m³. |
| | general population, dermal, Acute - local effects: 1,5 mg/cm². |
| | general population, dermal, Long-term - local effects: 1,5 mg/cm². |
| | general population, dermal, Long-term - systemic effects: 8,2 mg/kg bw/d. |
| | general population, inhalative, Long-term - local effects: 104 mg/m³. |
| | general population, inhalative, Long-term - systemic effects: 74,3 mg/m³. |

PNEC

| Range [%] | Substance |
|-----------|---|
| 70 - 90 | Methyl methacrylate, CAS: 80-62-6 |
| | soil, 1,47 mg/kg dw. |
| | sediment (freshwater), 5,74 mg/kg dw. |
| | sewage treatment plants (STP), 10 mg/l. |
| | seawater, 0,94 mg/l. |
| | freshwater, 0,94 mg/l. |



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8.2 Exposure controls

Eye protection Safety glasses.

Hand protection The details concerned are recommendations. Please contact the glove supplier for further

information.

In full contact:

Butyl rubber, >480 min (EN 374). In splash contact

Butyl rubber, >120 min (EN 374).

Skin protection Light protective clothing.

Other Personal protective equipment should be selected specifically for the working place,

depending on concentration and quantity of the hazardous substances handled. The resistance of these equipments to chemicals should be ascertained with the respective

supplier

Do not inhale vapours.

Avoid contact with eyes and skin.

Respiratory protection Breathing apparatus in the event of high concentrations.

Short term: filter apparatus, filter AX.

Thermal hazards No information available

Delimitation and monitoring of the See SECTION 6+7.

environmental exposition

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form Gel
Color opaque
Odor characteristic
Odour threshold not determined
pH-value not applicable
pH-value [1%] not determined
Boiling point [°C] not determined

Flash point [°C]

Flammability [°C] not determined
Lower explosion limit not determined
Upper explosion limit not determined

Oxidizing properties no

Vapour pressure/gas pressure [kPa] not determined

Density [g/ml] 0,95

 Bulk density [kg/m³]
 not applicable

 Solubility in water
 immiscible

 Partition coefficient [n-octanol/water]
 not determined

Viscosity 150.000 - 200.000 mPas (20°C)

Relative vapour density determined not determined

n air

Evaporation speed not determined

Melting point [°C] not determined

Autoignition temperature [°C] not determined

Decomposition temperature [°C] not determined

9.2 Other information

none



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SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong alkalies and oxidizing agents.

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

Reactions with strong acids.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

See SECTION 7

10.6 Hazardous decomposition products

Flammable gases/vapours.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Range [%] | Substance |
|-----------|--|
| 0 : : | 2,6-di-tert-butyl-p-cresol, CAS: 128-37-0 |
| | LD50, dermal, Rabbit: > 2000 mg/kg (Lit.). |
| | LD50, oral, Rat: > 2930 mg/kg (Lit.). |
| | LD50, oral, Rat: 1700 mg/kg (IUCLID). |
| 70 - 90 | Methyl methacrylate, CAS: 80-62-6 |
| | LD50, dermal, Rabbit: > 5000 mg/kg. |
| | LD50, oral, Rat: > 5000 mg/kg (OECD 401). |
| | LC50, inhalative, Rat: 29,8 mg/l. |

not determined Serious eye damage/irritation Skin corrosion/irritation not determined Respiratory or skin sensitisation not determined Specific target organ toxicity not determined single exposure Specific target organ toxicity not determined repeated exposure Mutagenicity not determined Reproduction toxicity not determined not determined Carcinogenicity General remarks

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. Toxicological data of complete product are not available.



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SECTION 12: Ecological information

12.1 Toxicity

| Range [%] | Substance |
|-----------|--|
| 0,25 - <1 | 2,6-di-tert-butyl-p-cresol, CAS: 128-37-0 |
| | LC50, (48h), Oryzias latipes: 5 mg/l (IUCLID). |
| | EC50, (72h), Scenedesmus subspicatus: > 0,42 mg/l (IUCLID). |
| 70 - 90 | Methyl methacrylate, CAS: 80-62-6 |
| | LC50, (96h), Oncorhynchus mykiss: > 79 mg/l (OECD 203). |
| | EC50, (72h), Selenastrum capricornutum: > 110 mg/l (OECD 201). |
| | EC50, (48h), Daphnia magna: 69 mg/l (OECD 202). |
| | NOEC, (21d), Daphnia magna: 37 mg/l (OECD 202-2). |
| | NOEC, Danio rerio: 9,4 mg/l (OECD 210). |

12.2 Persistence and degradability

Behaviour in environment

compartments

not determined

Behaviour in sewage plant Biological degradability

not determined

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Ecological data of complete product are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.

Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended)

080409*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended)

150110*



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SECTION 14: Transport information

14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

14.2 UN proper shipping name

Transport by land according to

ADR/RID

- Classification Code

- Label



UN 1133 ADHESIVES 3 II

UN 1133 ADHESIVES 3 II

- ADR LQ

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 2 (D/E)

Inland navigation (ADN)

-4

- Classification Code

- Label



Marine transport in accordance with UN 1133 Adhesives 3 II

IMDG

- EMS

F-E, S-D

- Label



- IMDG LQ

Air transport in accordance with IATA $\,$ UN 1133 $\,$ Adhesives 3 II $\,$

- Label



14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available.



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SECTION 15: Regulatory information

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

EEC-REGULATIONS 1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach);

1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC

TRANSPORT-REGULATIONS DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

CHIP 3/ CHIP 4

- Observe employment restrictions

for people

Observe employment restrictions for mothers-to-be and nursing mothers. Observe

employment restrictions for young people.

- VOC (1999/13/CE) not determined

15.2 Chemical safety assessment

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

SECTION 16: Other information

16.1 R-phrases (SECTION 3)

R 11: Highly flammable.

R 37/38: Irritating to respiratory system and skin. R 43: May cause sensitisation by skin contact. R 21/22: Harmful in contact with skin and if swallowed.

R 36/38: Irritating to eyes and skin.

R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

16.2 Hazard statements (SECTION 3)

H410 Very toxic to aquatic life with long lasting effects.

H400 Very toxic to aquatic life.

H319 Causes serious eye irritation.

H302+H312 Harmful if swallowed or in contact with skin.

H335 May cause respiratory irritation. H317 May cause an allergic skin reaction.

H315 Causes skin irritation.

H225 Highly flammable liquid and vapour.



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16.3 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging

DMEL = Derived Minimum Effect Level

DNEL = Derived No Effect Level

EC50 = Median effective concentration ECB = European Chemicals Bureau

EEC = European Economic Community

EINECS = European Inventory of Existing Commercial Chemical Substances

ELINCS = European List of Notified Chemical Substances

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC-Code = International Code for the Construction and Equipment of Ships carrying

Dangerous Chemicals in Bulk

IC50 = Inhibition concentration, 50%

IMDG = International Maritime Code for Dangerous Goods

IUCLID = International Uniform ChemicaL Information Database

LC50 = Lethal concentration, 50% LD50 = Median lethal dose

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

PBT = Persistent, Bioaccumulative and Toxic substance

PNEC = Predicted No-Effect Concentration

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

TLV®/TWA = Threshold limit value – time-weighted average TLV®STEL = Threshold limit value – short-time exposure limit

VOC = Volatile Organic Compounds

vPvB = very Persistent and very Bioaccumulative

16.4 Other information

Customs Tariff not determined

Classification procedure Flam. Liq. 2: H225 Highly flammable liquid and vapour. (On basis of test data)

Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method) STOT SE 3: H335 May cause respiratory irritation. (Calculation method)

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position none



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

1.1 Product identifier

Power Weld 5010, 5410, 2410 Part A

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

1.2.1 Relevant uses

Adhesive

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company Voelkel Industrie Produkte GmbH

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Address enquiries to

Technical informationinfo@vip-gmbh.comSafety Data Sheetsdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body +49 (0)89-19240 (24h) (english)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Flam. Lig. 2: H225 Highly flammable liquid and vapour.

Skin Corr. 1B: H314 Causes severe skin burns and eye damage.

Skin Sens. 1: H317 May cause an allergic skin reaction.

STOT SE 3: H335 May cause respiratory irritation.

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

Eye Dam. 1: H318 Causes serious eye damage.

2.1.2 Classification according to Directive 67/548/EEC or 1999/45/EC

F, Highly flammable - R 11: Highly flammable.

C, Corrosive - R 34: Causes burns.

Xi, Irritant - R 37: Irritating to respiratory system.

Sensitizing. - R 43: May cause sensitisation by skin contact.

R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.



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2.2 Label elements

The product is classified and required to be labelled in accordance with EC-Directives

Labelling according to Regulation (EC) 1272/2008

Hazard pictograms



(E)

Signal word DANGER

Contains: Methyl methacrylate

Methacrylic acid

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Cumene hydroperoxide

Hazard statements H225 Highly flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P260 Do not breathe vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor.

2.3 Other hazards

Other hazards none



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SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

| Range [%] | Substance |
|-----------|--|
| | Methyl methacrylate |
| | CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-XXXX |
| | GHS/CLP: Flam. Liq. 2: H225 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - STOT SE 3: H335 |
| | EEC: F-Xi, R 11-37/38-43 |
| 1 - <10 | Urethane methacrylate-oligomere |
| | GHS/CLP: Skin Irrit. 2: H315 - Eye Irrit. 2: H319 |
| | EEC: Xi, R 36/38 |
| 1 - <10 | Methacrylic acid |
| | CAS: 79-41-4, EINECS/ELINCS: 201-204-4, EU-INDEX: 607-088-00-5, ECB-Nr.: 01-2119463884-26-xxxx |
| | GHS/CLP: Acute Tox. 4: H302 - Acute Tox. 4: H332 - Acute Tox. 3: H311 - Skin Corr. 1A: H314 |
| | EEC: C, R 21/22-35 |
| 1 - <5 | Tosyl chloride |
| | CAS: 98-59-9, EINECS/ELINCS: 202-684-8 |
| | GHS/CLP: Skin Irrit. 2: H315 - Eye Dam. 1: H318 |
| | EEC: Xi, R 38-41 |
| 1 - <2,5 | 2,6-di-tert-butyl-p-cresol |
| | CAS: 128-37-0, EINECS/ELINCS: 204-881-4 |
| | GHS/CLP: Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M = 1 |
| | EEC: N, R 50/53 |
| 1 - <2,5 | Cumene hydroperoxide |
| | CAS: 80-15-9, EINECS/ELINCS: 201-254-7, EU-INDEX: 617-002-00-8 |
| | GHS/CLP: Org. Perox. E: H242 - Acute Tox. 3: H331 - Acute Tox. 4: H302 H312 - STOT RE 2: H373 - Skin Corr. |
| | 1B: H314 - Aquatic Chronic 2: H411, M = 1 |
| 01 -1 | EEC: O-T-N, R 7-21/22-23-48/20/22-34-51/53 Propylidynetrimethanol, ethoxylated, esters with acrylic acid |
| 0,1-<1 | CAS: 28961-43-5, EINECS/ELINCS: 500-066-5 |
| | GHS/CLP: Eye Irrit. 2: H319 - Skin Sens. 1: H317 |
| | EEC: Xi, R 36-43 |
| | LLO. Al, IN OU TO |

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%. For full text of H-statements and R-phrases: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Remove contaminated soaked clothing immediately and dispose of safely.

Inhalation Ensure supply of fresh air.

In the event of symptoms seek for medical treatment.

Skin contact In case of contact with skin wash off immediately with soap and water.

Consult a doctor if skin irritation persists.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Ingestion Consult a doctor immediately.

Do not induce vomiting.

Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Product is caustic.



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4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Forward this sheet to the doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Carbon dioxide.

Water spray jet. Dry powder. Foam.

Extinguishing media that must not

be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within

the local regulations.

Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.

Ensure adequate ventilation.
Use personal protective clothing.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous

earth).

Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide good room ventilation even at ground level (vapours are heavier than air).

Take precautionary measures against static discharges.

Keep away from all sources of ignition - Refrain from smoking.

Vapours can form an explosive mixture with air.

Do not eat, drink or smoke when using this product.

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

Wash hands before breaks and after work.

Use barrier skin cream.

Take off contaminated clothing and wash before reuse.



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7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Do not store together with oxidizing agents.

Keep container tightly closed.

Keep container in a well-ventilated place.

Protect from light.

Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2



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SECTION 8: Exposure controls / personal protection

Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

| onpooure minute to | ·································· |
|--------------------|--|
| Range [%] | Substance |
| 50 - 70 | Methyl methacrylate |
| | CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-XXXX |
| | Long-term exposure: 50 ppm, 208 mg/m³ |
| | Short-term exposure (15-minute): 100 ppm, 416 mg/m³ |
| 1 - <5 | Tosyl chloride |
| | CAS: 98-59-9, EINECS/ELINCS: 202-684-8 |
| | Short-term exposure (15-minute): 5 mg/m³ |
| 1 - <2,5 | 2,6-di-tert-butyl-p-cresol |
| | CAS: 128-37-0, EINECS/ELINCS: 204-881-4 |
| | Long-term exposure: 10 mg/m³ |
| 1 - <10 | Methacrylic acid |
| | CAS: 79-41-4, EINECS/ELINCS: 201-204-4, EU-INDEX: 607-088-00-5, ECB-Nr.: 01-2119463884-26-xxxx |
| | Long-term exposure: 20 ppm, 72 mg/m³ |
| | Short-term exposure (15-minute): 40 ppm, 143 mg/m³ |

Ingredients with occupational exposure limits to be monitored (EU)

| Range [%] | Substance / EC LIMIT VALUES |
|-----------------------------|--|
| 50 - 70 Methyl methacrylate | |
| | CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-XXXX |
| | Eight hours: 50 ppm |
| | Short-term (15-minute): 100 ppm |

DNEL

| Range [%] | Substance |
|-----------|--|
| 50 - 70 | Methyl methacrylate, CAS: 80-62-6 |
| | Industrial, inhalative, Long-term - local effects: 208 mg/m³. |
| | Industrial, dermal, Long-term - systemic effects: 13,67 mg/kg bw/d. |
| | Industrial, dermal, Long-term - local effects: 1,5 mg/cm². |
| | Industrial, dermal, Acute - local effects: 1,5 mg/cm². |
| | Industrial, inhalative, Long-term - systemic effects: 208 mg/m³. |
| | general population, dermal, Long-term - local effects: 1,5 mg/cm². |
| | general population, inhalative, Long-term - systemic effects: 74,3 mg/m³. |
| | general population, dermal, Long-term - systemic effects: 8,2 mg/kg bw/d. |
| | general population, dermal, Acute - local effects: 1,5 mg/cm². |
| | general population, inhalative, Long-term - local effects: 104 mg/m³. |
| 1 - <10 | Methacrylic acid, CAS: 79-41-4 |
| | Industrial, inhalative, Long-term - systemic effects: 29,6 mg/m³. |
| | Industrial, inhalative, Long-term - local effects: 88 mg/m³. |
| | Industrial, dermal, Long-term - systemic effects: 4,25 mg/kg bw/d. |
| | general population, dermal, Long-term - systemic effects: 2,55 mg/kg bw/d. |
| | general population, inhalative, Long-term - systemic effects: 6,3 mg/m³. |
| | general population, inhalative, Long-term - local effects: 6,55 mg/m³. |
| PNEC | |

| Range [%] Substance | |
|---|--|
| 50 - 70 Methyl methacrylate, CAS: 80-62-6 | |



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| soil, 1,47 mg/kg dw. | | |
|---|--|--|
| sediment (freshwater), 5,74 mg/kg dw. | | |
| sewage treatment plants (STP), 10 mg/l. | | |
| seawater, 0,94 mg/l. | | |
| freshwater, 0,94 mg/l. | | |
| Methacrylic acid, CAS: 79-41-4 | | |
| soil, 1,2 mg/kg dw. | | |
| sewage treatment plants (STP), 10 mg/l. | | |
| seawater, 0,82 mg/l. | | |
| freshwater, 0,82 mg/l. | | |

8.2 Exposure controls

Additional advice on system design

Ensure adequate ventilation on workstation.

Eye protection Safety glasses.

Hand protection The details concerned are recommendations. Please contact the glove supplier for further

information. In full contact:

Butyl rubber, >480 min (EN 374).

In splash contact

Butyl rubber, >60 min (EN 374).

Skin protection Light protective clothing of plastic material.

Other Personal protective equipment should be selected specifically for the working place,

depending on concentration and quantity of the hazardous substances handled. The resistance of these equipments to chemicals should be ascertained with the respective

supplier.

Do not inhale vapours.

Avoid contact with eyes and skin.

Respiratory protection Breathing apparatus in the event of high concentrations.

Short term: filter apparatus, filter A.

Thermal hazards
Delimitation and monitoring of the environmental exposition

See SECTION 6+7.

No information available.



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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form Gel

Color whitish

Odor characteristic

Odour threshold not determined

pH-value not applicable

pH-value [1%] not applicable

Boiling point [°C] not determined

Flash point [°C]

Flammability [°C] not determined
Lower explosion limit not determined
Upper explosion limit not determined

Oxidizing properties no

Vapour pressure/gas pressure [kPa] not determined

Density [g/ml] 0,97

Bulk density [kg/m³]not applicableSolubility in waterimmisciblePartition coefficient [n-octanol/water]not determined

Viscosity 130.000 - 150.000 mPas (20°C)

Relative vapour density determined

in air

not determined

Evaporation speed not determined

Melting point [°C] not determined

Autoignition temperature [°C] not determined

Decomposition temperature [°C] not determined

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting. Reactions with reducing agents, heavy metals.

Reactions with strong oxidizing agents.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

See SECTION 7

10.6 Hazardous decomposition products

Flammable gases/vapours.



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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Range [%] | Substance |
|-----------|---|
| 1 - <2,5 | Cumene hydroperoxide, CAS: 80-15-9 |
| | LD50, oral, Rat: 382 mg/kg IUCLID. |
| | LC50, inhalative, Rat: 220 ppm 4h IUCLID. |
| 1 - <2,5 | 2,6-di-tert-butyl-p-cresol, CAS: 128-37-0 |
| | LD50, dermal, Rabbit: > 2000 mg/kg (Lit.). |
| | LD50, oral, Rat: > 2930 mg/kg (Lit.). |
| | LD50, oral, Rat: 1700 mg/kg (IUCLID). |
| 50 - 70 | Methyl methacrylate, CAS: 80-62-6 |
| | LD50, dermal, Rabbit: > 5000 mg/kg. |
| | LD50, oral, Rat: > 5000 mg/kg (OECD 401). |
| | LC50, inhalative, Rat: 29,8 mg/l. |
| 1 - <10 | Methacrylic acid, CAS: 79-41-4 |
| | LD50, dermal, Rabbit: 500 - 1000 mg/kg. |
| | LD50, oral, Rat: 1320 mg/kg bw. |
| | LC50, inhalativ (vapour), Rat: 7,1 mg/l/h. |
| | |

Serious eye damage/irritation not determined Skin corrosion/irritation not determined Respiratory or skin sensitisation not determined Specific target organ toxicity not determined single exposure Specific target organ toxicity not determined repeated exposure Mutagenicity not determined Reproduction toxicity not determined Carcinogenicity not determined **General remarks**

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. Toxicological data of complete product are not available.

SECTION 12: Ecological information

12.1 Toxicity

| Range [%] | Substance |
|-----------|--|
| 1 - <2,5 | Cumene hydroperoxide, CAS: 80-15-9 |
| | LC50, (96h), Oncorhynchus mykiss: 3,9 mg/l. |
| | EC50, (24h), Daphnia magna: 7 mg/l. |
| 1 - <2,5 | 2,6-di-tert-butyl-p-cresol, CAS: 128-37-0 |
| | LC50, (48h), Oryzias latipes: 5 mg/l (IUCLID). |
| | EC50, (72h), Scenedesmus subspicatus: > 0,42 mg/l (IUCLID). |
| 50 - 70 | Methyl methacrylate, CAS: 80-62-6 |
| | LC50, (96h), Oncorhynchus mykiss: > 79 mg/l (OECD 203). |
| | EC50, (72h), Selenastrum capricornutum: > 110 mg/l (OECD 201). |
| | EC50, (48h), Daphnia magna: 69 mg/l (OECD 202). |
| | NOEC, (21d), Daphnia magna: 37 mg/l (OECD 202-2). |
| | NOEC, Danio rerio: 9,4 mg/l (OECD 210). |



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12.2 Persistence and degradability

Behaviour in environment

not determined

compartments

not determined

Behaviour in sewage plant Biological degradability

not determined

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Ecological data of complete product are not available.

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.

Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended) 080409*

Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.

Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150110*

SECTION 14: Transport information

14.1 UN number

See SECTION 14.2 in accordance with UN shipping name



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14.2 UN proper shipping name

Transport by land according to

ADR/RID

- Classification Code

- Label





- ADR LQ

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 3 (D/E)

UN 2924 Flammable liquid, corrosive, n.o.s. (Methyl-methacrylate, Methacrylic acid) 3 & 8 II

UN 2924 Flammable liquid, corrosive, n.o.s. (Methyl-methacrylate, Methacrylic acid) 3 & 8 II

UN 2924 Flammable liquid, corrosive, n.o.s. (Methyl methacrylate, Methacrylic acid) 3 & 8 II

Inland navigation (ADN) - Classification Code

- Label





Marine transport in accordance with

IMDG

- Label

- EMS F-E, S-C





- IMDG LQ

Air transport in accordance with IATA UN 2924 Flammable liquid, corrosive, n.o.s. (Methyl-methacrylate, Methacrylic acid mixture) 3

- Label





14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information

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

EEC-REGULATIONS 1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach);

1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC

TRANSPORT-REGULATIONS DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013). NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

CHIP 3/ CHIP 4

- Observe employment restrictions

for people

Observe employment restrictions for mothers-to-be and nursing mothers. Observe

employment restrictions for young people.

- VOC (1999/13/CE) not determined



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15.2 Chemical safety assessment

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

SECTION 16: Other information

16.1 R-phrases (SECTION 3)

R 11: Highly flammable.

R 37/38: Irritating to respiratory system and skin.

R 43: May cause sensitisation by skin contact.

R 36/38: Irritating to eyes and skin.

R 21/22: Harmful in contact with skin and if swallowed.

R 35: Causes severe burns.

R 38: Irritating to skin.

R 41: Risk of serious damage to eyes.

R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 36: Irritating to eyes.

R 7: May cause fire.

R 23: Toxic by inhalation.

R 48/20/22: Harmful - danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R 34: Causes burns.

R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16.2 Hazard statements (SECTION 3)

H411 Toxic to aquatic life with long lasting effects.

H373 May cause damage to organs through prolonged or repeated exposure.

H302+H312 Harmful if swallowed or in contact with skin.

H331 Toxic if inhaled.

H242 Heating may cause a fire.

H410 Very toxic to aquatic life with long lasting effects.

H400 Very toxic to aquatic life.

H318 Causes serious eye damage.

H314 Causes severe skin burns and eye damage.

H311 Toxic in contact with skin.

H332 Harmful if inhaled.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H317 May cause an allergic skin reaction.

H315 Causes skin irritation.

H225 Highly flammable liquid and vapour.



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16.3 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging

DMEL = Derived Minimum Effect Level

DNEL = Derived No Effect Level

EC50 = Median effective concentration ECB = European Chemicals Bureau EEC = European Economic Community

EINECS = European Inventory of Existing Commercial Chemical Substances

ELINCS = European List of Notified Chemical Substances

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC-Code = International Code for the Construction and Equipment of Ships carrying

Dangerous Chemicals in Bulk

IC50 = Inhibition concentration, 50%

IMDG = International Maritime Code for Dangerous Goods

IUCLID = International Uniform Chemical Information Database

LC50 = Lethal concentration, 50% LD50 = Median lethal dose

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

PBT = Persistent, Bioaccumulative and Toxic substance

PNEC = Predicted No-Effect Concentration

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

TLV®/TWA = Threshold limit value – time-weighted average TLV®STEL = Threshold limit value – short-time exposure limit

VOC = Volatile Organic Compounds

vPvB = very Persistent and very Bioaccumulative

16.4 Other information

Customs Tariff not determined

Classification procedure Flam. Liq. 2: H225 Highly flammable liquid and vapour. (On basis of test data)

Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (Calculation method)

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method) STOT SE 3: H335 May cause respiratory irritation. (Calculation method)

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Eye Dam. 1: H318 Causes serious eye damage. (On basis of test data)

Modified position none



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