

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Fluid
Colour:	Colourless
· Odour:	Ester-like
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	101 °C (MMA)
· Flash point:	22 °C (DIN EN ISO 3680)
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	430 °C (MMA)
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.7 Vol % (MMA)
Upper:	12.5 Vol % (MMA)
· Vapour pressure at 20 °C:	38.7 hPa (MMA)
· Density at 20 °C:	1.03 g/cm ³ (EN ISO 2811-1)
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	
Not miscible or difficult to mix.	
· Partition coefficient: n-octanol/water:	
log Pow: 4,29 (2-EHA); (25 °C, OECD 107)	
log Pow: 1,38 (MMA)	
· Viscosity:	
Dynamic at 20 °C:	600 mPas (EN ISO 2555)
· Solvent content:	
Organic solvents:	0.0 %
VOC (EC)	0.00 %
Solids content:	56.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see Section 10.2
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Exothermic reaction.

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Reacts with peroxides and other radical forming substances.

A hazardous polymerization may occur after the exhaustion of the inhibitor.

· **10.4 Conditions to avoid** Avoid heat. Avoid direct sunlight.

· **10.5 Incompatible materials:** Reactions with peroxides and other free-radical generators.

· **10.6 Hazardous decomposition products:**

No dangerous decomposition products used according to specifications.

· **Additional information:**

Emergency procedures will vary depending on individual circumstances. The customer should have a contingency plan to the workplace may be present.

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects** There were no toxicological findings to the mixture.

· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

80-62-6 methyl methacrylate		
Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
	NOAEL	2,000 ppm (rat) in drinking water, 6-2000 ppm Findings: No toxic effects
Dermal	LC50	>5,000 mg/kg (rabbit)
Inhalative	NOAEL	25 ppm (rat) 25 - 400 ppm Findings: Damage to mucous membranes in the nose at 400 ppm
	LC50/4h	29.8 mg/l (rat)
25068-38-6 Bisphenol-A-epichlorohydrin		
Oral	LD50	>5,000 mg/kg (rat)
103-11-7 2-ethylhexyl acrylate		
Oral	LD50	4,435 mg/kg (rat) (BASF-Test)
Dermal	LC50	7,520 mg/kg (hare)
84170-74-1 Neopentylglycol propoxylated diacrylate		
Dermal	LD50	>2,000 mg/kg (rat)

· **Primary irritant effect:**

· **Skin corrosion/irritation**

Causes skin irritation.

· **Serious eye damage/irritation**

Causes serious eye irritation.

· **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

· **Other information (about experimental toxicology):**

Due to the high vapor pressure is a harmful concentration in the air quickly been reached. At high concentrations can occur narcotic effect.

· **Subacute to chronic toxicity:** not tested

· **Toxicokinetics, metabolism and distribution** The drug is metabolized rapidly (MMA).

· **Repeated dose toxicity** no data available

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** not tested

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

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- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

80-62-6 methyl methacrylate

EC3/16h | 100 mg/l (Pseudomonas putida) (Cell proliferation inhibition test, Bringmann-Kühn)

· Aquatic toxicity:

80-62-6 methyl methacrylate

EC50/48h	69 mg/l (daphnia magna) (OECD 202)
LC50/96h	>79 mg/l (Rainbow trout) (OECD 203)
ErC50/72h	>110 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
NOEC/72h	>110 mg/l (Selenastrum capricornutum) (OECD 201)
EC50/72h	>110 mg/l (Selenastrum capricornutum) (OECD 201)
NOEC	9.4 mg/l (Danio rerio) (OECD 210) fish early life stage test, 35 days
	37 mg/l (daphnia magna) (OECD 211) 21 days

25068-38-6 Bisphenol-A-epichlorohydrin

EC50/48h (static)	1.7 mg/l (daphnia magna) (OECD 202, Acute Immobilisation Test)
LC50/96h (static)	1.5 mg/l (fish) (OECD 203, Acute Toxicity Test)
NOEC/21d	0.3 mg/l (daphnia magna) (OECD 211, Reproduction Test)
EC50/72h (static)	9.4 mg/l (Alge (Desmodesmus subspicatus))

103-11-7 2-ethylhexyl acrylate

other (28d)	>1,000 mg/kg (Soil microorganisms) (OECD 217) The product has not been tested. The statement has been derived from products of a similar structure or composition.
EC50/48h (static)	1.3 mg/l (daphnia magna) (OECD-Richtline 202) Part 1
LC50/96h (static)	1.81 mg/l (Rainbow trout) (OECD 203)
NOEC/21d	0.19 mg/l (daphnia magna) The details of the toxic effect relates to the analytically determined concentration. The product has not been tested. The statement has been derived from products of a similar structure or composition.
EC50/72h (static)	1.71 mg/l (scenedesmus subspicatus) (OECD 201) Die Angaben der toxischen Wirkung bezieht sich auf die analytisch ermittelte Konzentration.

84170-74-1 Neopentylglycol propoxylated diacrylate

EC50/48h	37 mg/l (daphnia magna)
LC50/96h	2.7 mg/l (Brachydanio rerio)
NOEC/72h	1 mg/l (Pseudokirchneriella subcapitata)
EC50/72h	3.4 mg/l (alga)
NOEC	25.3 mg/l (daphnia magna) (48 h)

- **12.2 Persistence and degradability** Easily biodegradable

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- **Other information:** The product is easily biodegradable.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil**
MMA: A binding to the solid phase of soil, sediment and sewage sludge is not expected. From the water surface the substance is slowly evaporated into the atmosphere. Where the substance into the environment he verleiht preferably in the compartment into which it has emerged.
- **Additional ecological information:**
- **BOD5-value:** 0.14 g/g (MMA)
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Does not meet the PBT-criteria of Annex XIII of REACH (self assessment).
- **vPvB:** Does not meet the vPvB-criteria of Annex XIII of REACH (self assessment).
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
Hazardous waste according to Waste Catalogue (EWC). If recycling is not possible, waste must be in compliance with local regulations to be removed.
- **Recommendation**



Must not be disposed together with household garbage. Do not allow product to reach sewage system.


- Uncured product residues are special waste.
- Cured product residues are not hazardous waste.

- **Waste disposal key:**
The following Waste Codes of the European Waste Catalogue (EWC), are considered a recommendation. The disposal must be coordinated with the local waste disposal company.
Liquid product:
080111 * paint and varnish containing organic solvents or other dangerous substances
080199 waste nec
Cured product residues:
080112 paint and varnish wastes other than those mentioned in 080111
080410 adhesive waste adhesives and sealants other than those mentioned in 080409
- **European waste catalogue** 080111 * (recommended)
- **Uncleaned packaging:**
- **Recommendation:**
This material and its container must be disposed of as hazardous waste.
Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---------------------------------------|------------|
| · 14.1 UN-Number | |
| · ADR, IMDG, IATA | UN1263 |
| · 14.2 UN proper shipping name | |
| · ADR | 1263 PAINT |

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· IMDG, IATA	PAINT
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA	
	
· Class · Label	3 Flammable liquids. 3
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category	Warning: Flammable liquids. - F-E, S-E A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category · Tunnel restriction code · Remarks:	3 E Classification according to viscosity clause (2.2.3.1.4) > 450 litres Packing group II
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Remarks:	Classification according to viscosity clause (2.3.2.3) > 30 litres Packing group II
· UN "Model Regulation":	UN 1263 PAINT, 3, III

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

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- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
 - **National regulations:**
 - **Information about limitation of use:**
Employment restrictions under the Maternity Protection Directive (94/33/EC).
Employment restrictions for maternity Directive (92/85/EEC) for expectant and nursing mothers.
 - **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
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* SECTION 16: Other information

These figures relate to the product as delivered.

Sector of Use

Relevant identified uses of the mixture

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU19 Building and construction work

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

SU21 Consumer uses: Private households / general public / consumers

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

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.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

· **Training hints**

Teaching about hazards and precautions to hand the operating instructions (Technical Rule 555).
Instruction must take place before the start of employment and at least annually thereafter.

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

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Skin Sens. 1B: Skin sensitisation – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Sources

www.gestis.de

www.echa.eu

logkow.cisti.nrc.ca

- * **Data compared to the previous version altered.**

- **Version History.**

V1 June 1st 2015 New release for Classification, Labelling Packaging Regulations Version

V2 May 2017 Revised heading to remove DPD / Chip classification
