

1 Identification

- **Product identifier**
- **Trade name: HydroSeal® Primer**
- **Application of the substance / the mixture** Priming
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 American Hydrotech, Inc.
 401 N. Michigan Av.
 Suite 1550
 Chicago, IL 60611
 USA
 Tel: 312 337-4998
 www.hydrotechusa.com
- **Information department:** Division product safety
- **Emergency telephone number:** Tel: 1-312-337-4998

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 2

H225 Highly flammable liquid and vapor.



GHS07

Skin Irritation 2

H315 Causes skin irritation.

Eye Irritation 2A

H319 Causes serious eye irritation.

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure 3

H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**

methyl methacrylate

Bisphenol-A-epichlorohydrin

2-ethylhexyl acrylate

Neopentylglycol propoxylated diacrylate

Reaktionsmasse von 2,2'-[(4-Methylphenyl)imino]bisethanol und 2-[[2-(2-Hydroxyethoxy)ethyl](4-Methylphenyl)amino]-ethanol

- **Hazard statements**

H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

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Precautionary statements

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P261 Avoid breathing vapours.
- P280 Wear protective gloves/ eye protection.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P312 Call a poison center/doctor if you feel unwell.
- P403+P235 Store in a well-ventilated place. Keep cool.

Classification system:
NFPA ratings (scale 0 - 4)


Health = 2
Fire = 3
Reactivity = 0

HMIS-ratings (scale 0 - 4)


HEALTH 2 Health = 2
FIRE 3 Fire = 3
REACTIVITY 0 Reactivity = 0

Other hazards
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).

3 Composition/information on ingredients

Chemical characterization: Mixtures

- Description:** Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

CAS: 80-62-6 Index number: 607-035-00-6	methyl methacrylate	25-50%
CAS: 25068-38-6 Index number: 603-074-00-8	Bisphenol-A-epichlorohydrin	10-25%
CAS: 103-11-7 Index number: 607-107-00-7	2-ethylhexyl acrylate	≥2.5-<10%
CAS: 84170-74-1	Neopentylglycol propoxylated diacrylate	≥1-≤2.5%
	Reaktionsmasse von 2,2'-[(4-Methylphenyl)imino]bisethanol und 2-[[2-(2-Hydroxyethoxy)ethyl](4-Methylphenyl)amino]-ethanol	≥0.1-<1%

4 First-aid measures

Description of first aid measures
General information:

- Immediately remove any clothing soiled by the product.
- Take affected persons out of danger area and lay down.
- Involve doctor immediately.

After inhalation:

- In case of unconsciousness place patient stably in side position for transportation.
- Take affected persons into fresh air and keep quiet.
- Seek medical treatment.

After skin contact:

- Immediately wash with water and soap and rinse thoroughly.
- If skin irritation continues, consult a doctor.

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- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
 Headache
 Dizziness
 Skin sensitization.
 Irritant to skin, eyes and respiratory system.
- **Indication of any immediate medical attention and special treatment needed**
 After inhalation, even in the absence of signs of disease, inhaled corticosteroid (eg Ventolair) give.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder, foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
 Can form explosive gas-air mixtures.
 Formation of toxic gases is possible during heating or in case of fire.
 In case of fire, the following can be released:
 Carbon monoxide (CO)
 Nitrogen oxides (NO_x)
 Vapours are heavier than air.
 Crawling vapors can result in greater distance from the ignition!
- **Advice for firefighters**
- **Protective equipment:**
 Wear fully protective suit.
 Wear self-contained respiratory protective device.
- **Additional information**
 Cool endangered receptacles with water spray.
 Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 Ensure adequate ventilation



Keep away from ignition sources

Use respiratory protective device against the effects of fumes/dust/aerosol.
 Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**
 Do not allow to enter sewers/ surface or ground water.
 Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
 Do not flush with water or aqueous cleansing agents
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

PAC-1:	80-62-6 methyl methacrylate	17 ppm
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		(Contd. of page 3)
103-11-7	2-ethylhexyl acrylate	15 ppm
7447-41-8	lithium chloride	2.3 mg/m ³
111-66-0	oct-1-ene	40 ppm
67-68-5	dimethyl sulfoxide	150 ppm
· PAC-2:		
80-62-6	methyl methacrylate	120 ppm
103-11-7	2-ethylhexyl acrylate	120 ppm
7447-41-8	lithium chloride	25 mg/m ³
111-66-0	oct-1-ene	800* ppm
67-68-5	dimethyl sulfoxide	290 ppm
· PAC-3:		
80-62-6	methyl methacrylate	570 ppm
103-11-7	2-ethylhexyl acrylate	150 ppm
7447-41-8	lithium chloride	150 mg/m ³
111-66-0	oct-1-ene	2000* ppm
67-68-5	dimethyl sulfoxide	1,800 ppm

7 Handling and storage

· Handling:

· Precautions for safe handling

Cool down container when heated. Cool containers exposed to heat with water. Emergency cooling must be provided in the event of an ambient fire. Keep container tightly closed to prevent heat build up (pressure increase). Avoid heat.

Do not refill residue into storage receptacles.

Ensure good ventilation/exhaustion at the workplace.

at least 7-fold air changes per hour

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Highly volatile, flammable constituents are released during processing.

Keep ignition sources away - Do not smoke.

Fumes can combine with air to form an explosive mixture.

Only explosion-proof equipment.

Protect against electrostatic charges.

Protect from heat.

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Store in a cool location.

· Information about storage in one common storage facility:

Store away from oxidizing agents.

Store away from foodstuffs.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

max. Storage temperature 30 ° C

Storage in a collecting room is required.

Store under lock and key and with access restricted to technical experts or their assistants only.

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

· Specific end use(s) Building coating or sealing.

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8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

80-62-6 methyl methacrylate (25-50%)

PEL Long-term value: 410 mg/m³, 100 ppm

REL Long-term value: 410 mg/m³, 100 ppm

TLV Short-term value: 100 ppm

Long-term value: 50 ppm

DSEN, A4

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Avoid contact with the eyes and skin.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Do not inhale gases / fumes / aerosols.

· **Breathing equipment:**

Ensure good ventilation.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

Check protective gloves prior to each use for their proper condition.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

· **Material of gloves**



Butyl rubber gloves - butyl e.g. KCL BUTOJET

Recommended thickness of the material: ≥ 0.7 mm

Breakthrough time: ≥ 480 min

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Our Recommendation is mainly on a one-time use as a short-term protection Liquid splashes. For other applications, you should contact a glove manufacturer.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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- **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**
Butyl rubber, BR
- **For the permanent contact gloves made of the following materials are suitable:** Butyl rubber, BR
- **Not suitable are gloves made of the following materials:** Leather gloves
- **Eye protection:**



Tightly sealed goggles

- **Body protection:**
Chemical resistant safety shoes or boots.



Chemical resistant safety shoes or boots



Protective work clothing

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· Form:	Fluid
· Color:	Colorless
· Odor:	Ester-like
· Odor threshold:	not be determined.

· **pH-value:** Mixture is non-polar/aprotic.

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	101 °C (213.8 °F) (MMA)

· **Flash point:** 17 °C (62.6 °F) (DIN EN ISO 3680)

· **Flammability (solid, gaseous):** Highly flammable.

· **Auto igniting:** 252 °C (485.6 °F) (2-EHA)

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Not determined.

· **Explosion limits:**

· Lower:	1.7 Vol % (MMA)
· Upper:	12.5 Vol % (MMA)

· **Vapor pressure at 20 °C (68 °F):** 38.7 hPa (29 mm Hg) (MMA)

· **Density at 20 °C (68 °F):** 1.03 g/cm³ (8.6 lbs/gal) (EN ISO 2811-1)

· **Evaporation rate** No data available.

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· 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 (68 °F):	600 mPas (EN ISO 2555)
· Solvent content:	
VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
Solids content:	56.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** see Section 10.2
- **Possibility of hazardous reactions**
Exothermic reaction.
Reacts with peroxides and other radical forming substances.
A hazardous polymerization may occur after the exhaustion of the inhibitor.
- **Conditions to avoid** Avoid heat. Avoid direct sunlight.
- **Incompatible materials:** Violent reactions with peroxides and other reducing agents
- **Hazardous decomposition products:** No hazardous decomposition products when used as directed.
- **Additional information:**
Emergency procedures will vary depending on individual circumstances. The customer should have a contingency plan to the workplace may be present.

11 Toxicological information

- **Information on toxicological effects** There were no toxicological findings to the mixture.
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
80-62-6 methyl methacrylate		
Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
	NOAEL	2,000 ppm (rat) 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)

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Reaktionsmasse von 2,2'-[(4-Methylphenyl)imino]bisethanol und 2-[[2-(2-Hydroxyethoxy)ethyl]-(4-Methylphenyl)amino]-ethanol

Oral	LD50	500 mg/kg (ATE)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.
- **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
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

80-62-6	methyl methacrylate	3
103-11-7	2-ethylhexyl acrylate	2B
128-37-0	Butylated hydroxytoluene	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **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.
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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)

- **Persistence and degradability** Easily biodegradable
- **Other information:** The product is easily biodegradable.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** May be accumulated in organism
- **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.
2-EHA: The product floats on water and does not dissolve. Adsorption on soil is not likely.
- **Additional ecological information:**
- **CSB-value:** 2-EHA: Theoretical oxygen demand (TOD) = 5.6 g/g
- **BSB5-value:** 0.14 g/g (MMA)
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **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).
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **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 of 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.

- **Uncleaned packagings:**
- **Recommendation:**
This product (liquid) and its container must be disposed of as hazardous waste. Disposal must be made according to official regulations.

Trade name: HydroSeal® Primer

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14 Transport information

· UN-Number	UN1263
· DOT, ADR, IMDG, IATA	
· UN proper shipping name	Paint
· DOT	1263 PAINT
· ADR	PAINT
· IMDG, IATA	
· Transport hazard class(es)	
· DOT	
	
· Class	3 Flammable liquids
· Label	3
· ADR	
	
· Class	3 (F1) Flammable liquids
· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	III
· DOT, ADR, IMDG, IATA	
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Hazard identification number (Kemler code):	-
· EMS Number:	F-E,S-E
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Remarks:	Classification according to viscosity clause [(173.120 (2) (d) and 173.121 (b) (iv)]
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Remarks:	Classification according to viscosity clause (2.2.3.1.4) > 450 litres Packing group II

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· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· Remarks:	Classification according to viscosity clause (2.3.2.2) > 450 litres Packing group II
· UN "Model Regulation":	UN 1263 PAINT, 3, III

15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

80-62-6 | methyl methacrylate

· **TSCA (Toxic Substances Control Act):**

80-62-6	methyl methacrylate	ACTIVE
103-11-7	2-ethylhexyl acrylate	ACTIVE
84170-74-1	Neopentylglycol propoxylated diacrylate	ACTIVE
103671-44-9	N,N-Bis-(2-hydroxyethyl)-p-toluidine	ACTIVE
8002-74-2	Paraffin waxes and Hydrocarbon waxes	ACTIVE
128-37-0	Butylated hydroxytoluene	ACTIVE
7447-41-8	lithium chloride	ACTIVE
111-66-0	oct-1-ene	ACTIVE
67-68-5	dimethyl sulfoxide	ACTIVE

· **Hazardous Air Pollutants**

80-62-6 | methyl methacrylate

· **Proposition 65**

· **Chemicals known to cause cancer:**

103-11-7 | 2-ethylhexyl acrylate

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

80-62-6 | methyl methacrylate E, NL

· **TLV (Threshold Limit Value)**

80-62-6	methyl methacrylate	A4
128-37-0	Butylated hydroxytoluene	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

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Trade name: HydroSeal® Primer

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- **National regulations:**
- **Information about limitation of use:**
 Employment restrictions concerning young persons must be observed.
 Employment restrictions concerning pregnant and lactating women must be observed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* 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.

· 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.

· Contact:

· **Date of preparation / last revision 03/08/2024**

· Abbreviations and acronyms:

ICAO: International Civil Aviation Organisation

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

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Sensitization - Skin 1: Skin sensitisation – Category 1

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

· Sources

www.gestis.de

www.echa.eu

logkow.cisti.nrc.ca

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