

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

#### 1.1. Product identifier

Product form : Mixture  
 Product name : BRAWO LR  
 UFI : 2QX0-W032-F00W-JGDS

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use  
 Industrial/Professional use spec : Industrial  
 Use of the substance/mixture : Resin system used in the manufacture of glass fibre reinforced plastics or non-reinforced products

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

BRAWO SYSTEMS GmbH  
 BLECHHAMMERWEG 13-17  
 67659 KAISERSLAUTERN  
 Deutschland  
 T +49 631 20561-100  
[info@brawoliner.com](mailto:info@brawoliner.com), [www.brawosystems.com](http://www.brawosystems.com)

#### 1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
Germany	Giftinformationszentrum (GIZ) der Länder Rheinland-Pfalz und Hessen Klinische Toxikologie, Universitätsklinikum	Langenbeckstraße 1 55131 Mainz	+49 6131 19240	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 2 H315  
 Serious eye damage/eye irritation, Category 1 H318  
 Skin sensitisation, Category 1 H317  
 Specific target organ toxicity – Single exposure, Category 3, H335  
 Respiratory tract irritation  
 Hazardous to the aquatic environment – Chronic Hazard, H411  
 Category 2  
 Full text of H- and EUH-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

	GHS05	GHS07	GHS09
Signal word (CLP)	: Danger		
Contains	: (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate; Poly(oxy-1,2-ethanediyl),a-(1-oxo-2-propen-1-yl)-w-[(1-oxo-2-propen-1-yl)oxy]; methacrylic acid; 2-methylpropenoic acid; phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide		
Hazard statements (CLP)	: H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H335 - May cause respiratory irritation. H411 - Toxic to aquatic life with long lasting effects.		
Precautionary statements (CLP)	: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P273 - Avoid release to the environment. P280 - Wear protective gloves, eye protection, protective clothing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P391 - Collect spillage.		

### 2.3. Other hazards

Other hazards which do not result in classification : None under normal conditions. This mixture does not contain any substance assessed as a PBT or zPzB.

This substance/mixture does not contain any components that can be considered persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

Contains no PBT/vPvB substances  $\geq$  0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate	CAS-No.: 42978-66-5 EC-No.: 256-032-2 EC Index-No.: 607-249-00-X REACH-no: 01-2119484613-34	25 – 50	Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Poly(oxy-1,2-ethanediyl),a-(1-oxo-2-propen-1-yl)-w-[(1-oxo-2-propen-1-yl)oxy]	CAS-No.: 26570-48-9	5 – 10	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
methacrylic acid; 2-methylpropenoic acid	CAS-No.: 79-41-4 EC-No.: 201-204-4 EC Index-No.: 607-088-00-5 REACH-no: 01-2119463884-26	0.3 – 1	Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	CAS-No.: 162881-26-7 EC-No.: 423-340-5 EC Index-No.: 015-189-00-5	0.1 – 0.25	Skin Sens. 1, H317 Aquatic Chronic 4, H413

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate	CAS-No.: 42978-66-5 EC-No.: 256-032-2 EC Index-No.: 607-249-00-X REACH-no: 01-2119484613-34	(10 ≤ C < 100) STOT SE 3, H335
methacrylic acid; 2-methylpropenoic acid	CAS-No.: 79-41-4 EC-No.: 201-204-4 EC Index-No.: 607-088-00-5 REACH-no: 01-2119463884-26	(1 ≤ C < 100) STOT SE 3, H335

Comments : There are no additional ingredients present which, to the best of the supplier's knowledge and at the applicable concentrations, are classified as harmful to health or the environment, PBT or vPvB or have been assigned a workplace exposure limit and must therefore be listed in this section.

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Immediately remove contaminated clothing or footwear. Call a poison center or a doctor if you feel unwell. In case of loss of consciousness, place the victim in the recovery position.

First-aid measures after inhalation : Call a POISON CENTER/doctor. Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Medical advice must be obtained and all rescuers must be equipped with personal protective equipment.

First-aid measures after skin contact : Immediately call a POISON CENTER/doctor. Wash with plenty of water/.... Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse. Chemical burns should be treated by a doctor immediately.

First-aid measures after eye contact : Immediately call a POISON CENTER/doctor. Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Chemical burns should be treated by a doctor immediately.

First-aid measures after ingestion : Immediately call a POISON CENTER/doctor. Rinse mouth out with water. Go into open air and ventilate suspected area. Never attempt to induce vomiting : risk of inhalation. Never give anything by mouth to an unconscious person. Chemical burns should be treated by a doctor immediately.

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

Symptoms/effects : Frequent or prolonged contacts may defat and dry the skin, leading to discomfort and dermatitis.

Symptoms/effects after inhalation : Cough. May cause respiratory irritation.

Symptoms/effects after skin contact : Irritation. Pain. Redness. Delayed skin irritation and blistering.

Symptoms/effects after eye contact : Redness. Pain. Lacrimation.

Symptoms/effects after ingestion : Ingestion may cause nausea and vomiting.

Chronic symptoms : There are potential chronic health effects to consider.

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

Treat symptomatically. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

- Fire hazard : Heating will cause a rise in pressure with a risk of bursting. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not allow run-off from fire-fighting to enter drains or water courses.
- Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide. metallic oxides. Fire will produce dense black smoke. Aldehydes. Organic acids.

### 5.3. Advice for firefighters

- Firefighting instructions : Do not enter fire area without proper protective equipment, including respiratory protection. In case of fire: Evacuate area.
- Protection during firefighting : Wear recommended personal protective equipment. EN 469. Do not enter fire area without proper protective equipment, including respiratory protection. Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate area. Only qualified personnel equipped with suitable protective equipment may intervene. Evacuate unnecessary personnel. Ventilate spillage area. Do not touch or walk on the spilled product. Wear suitable respiratory equipment in case of insufficient ventilation. Wear personal protective equipment.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Notify authorities if product enters sewers or public waters. Harmful to aquatic life with long lasting effects. Collect spillage.

### 6.3. Methods and material for containment and cleaning up

- For containment : Stop leak without risks if possible. Contain and collect spillage with non-flammable absorbent materials, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13). If available, use foam to cover the spillage and reduce the fire risk. In case of dumping into water, contain the product with floating barriers or other equipment. The use of dispersants should be recommended by an expert and, if required, approved by the local authorities.
- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Ensure good ventilation of the work station.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off immediately all contaminated clothing and wash it before reuse.

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### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Keep only in original container. Protect from sunlight. Protect from moisture. Store locked up. Keep container tightly closed. Opened containers must be carefully closed and kept upright to avoid leakage. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### 7.3. Specific end use(s)

Resin system used in the manufacture of glass fibre reinforced plastics or non-reinforced products.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

<b>(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate (42978-66-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	2.77 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	24.48 mg/m <sup>3</sup>
<b>methacrylic acid; 2-methylpropenoic acid (79-41-4)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	4.25 mg/kg bodyweight/day
Long-term - local effects, inhalation	88 mg/m <sup>3</sup>

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

##### Appropriate engineering controls:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction.

#### 8.2.2. Personal protection equipment

##### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses with side shields. (EN166)

##### 8.2.2.2. Skin protection

###### Skin and body protection:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Wear a chemically resistant protective suit

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### Hand protection:

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. For prolonged or repeated handling, use the following type of gloves: Recommended: > 8 hours (breakthrough time): nitrile rubber. Thickness of the gloves: 0.11 mm. The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN 374-3 : 2003. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

### Other skin protection

#### Materials for protective clothing:

Wear overalls or long sleeved shirt. (EN 467). Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: organic vapour (Type A) and particulate filter (EN 140).

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment. Emissions from ventilation or processing equipment must be monitored to ensure they comply with the requirements of environmental protection legislation. In some cases, scrubbers, filters or technical modifications of the process equipment are necessary to reduce the emission to an acceptable level.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: yellowish. clear.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Heating may cause a fire.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 110 °C Setaflash Closed Cup
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Viscosity, dynamic	: 2800 – 3200 mPa.s (23°C)
Solubility	: Insoluble in: Cold and hot water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1.11 g/ml (23°C)
Relative density	: 1.11 (Water = 1)
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

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### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Strong acids.

### 10.6. Hazardous decomposition products

No information available.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : No data available  
Acute toxicity (dermal) : No data available  
Acute toxicity (inhalation) : No data available

#### methacrylic acid; 2-methylpropenoic acid (79-41-4)

LD50 oral rat	1060 mg/kg
LD50 dermal rabbit	500 mg/kg
LC50 Inhalation - Rat	7.1 mg/l/4h

Skin corrosion/irritation : Causes skin irritation. May produce an allergic reaction  
Serious eye damage/irritation : Causes serious eye damage.  
Respiratory or skin sensitisation : May cause respiratory irritation.  
Germ cell mutagenicity : No data available  
Carcinogenicity : No data available  
Reproductive toxicity : No data available  
STOT-single exposure : No data available

#### (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate (42978-66-5)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure : No data available  
Aspiration hazard : No data available

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### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

No additional information available

#### 11.2.2. Other information

Potential adverse human health effects and symptoms : With persons who have once been sensitised, a severe allergic reaction can occur thereafter when using this product at very low concentrations

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.  
Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

#### methacrylic acid; 2-methylpropenoic acid (79-41-4)

LC50 - Fish [1]	85 mg/l
EC50 - Crustacea [1]	> 130 mg/l Daphnia Magna

### 12.2. Persistence and degradability

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Persistence and degradability Rapidly degradable

#### (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate (42978-66-5)

Persistence and degradability Rapidly degradable

#### Poly(oxy-1,2-ethanediyl),a-(1-oxo-2-propen-1-yl)-w-[(1-oxo-2-propen-1-yl)oxy] (26570-48-9)

Persistence and degradability Rapidly degradable

#### methacrylic acid; 2-methylpropenoic acid (79-41-4)

Persistence and degradability Rapidly degradable

#### phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide (162881-26-7)

Persistence and degradability Rapidly degradable

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

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This substance/mixture does not contain any components that can be considered persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

### 12.6. Endocrine disrupting properties

No additional information available



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### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions. The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Sewage disposal recommendations	: The generation of waste should be avoided or minimized whenever possible. Waste packaging should be recycled; Incineration or landfill should only be considered when recycling is not feasible. This material and his container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Product/Packaging disposal recommendations	: The European Waste Catalogue classification of this product, when disposed of as waste is 08 0111: waste paint and varnish containing organic solvents or other dangerous substances.
Ecological information	: This product is regarded as hazardous waste as defined by EU Directive 91/689/EEC.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

### 14.1. UN number or ID number

UN-No. (ADR)	: UN 3082
UN-No. (IMDG)	: UN 3082
UN-No. (IATA)	: UN 3082

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s.
Transport document description (ADR)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (((1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)]diacrylate)), 9, III, (E)
Transport document description (IMDG)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (((1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)]diacrylate)), 9, III, MARINE POLLUTANT
Transport document description (IATA)	: UN 3082 Environmentally hazardous substance, liquid, n.o.s. (((1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)]diacrylate)), 9, III

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR)	: 9
Danger labels (ADR)	: 9



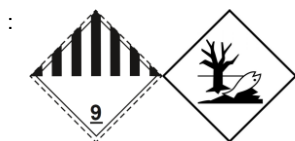
#### IMDG

Transport hazard class(es) (IMDG)	: 9
Danger labels (IMDG)	: 9

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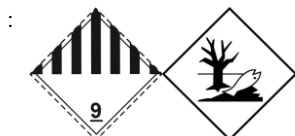
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### IATA

Transport hazard class(es) (IATA) : 9

Danger labels (IATA) : 9



### 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

### 14.5. Environmental hazards

Dangerous for the environment : Yes

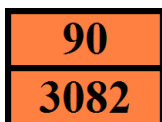
Marine pollutant : Yes

Other information : No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR) : M6  
Special provisions (ADR) : 274, 335, 601, 375  
Limited quantities (ADR) : 5I  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P001, IBC03, LP01, R001  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T4  
Portable tank and bulk container special provisions (ADR) : TP1, TP29  
Tank code (ADR) : LGBV  
Vehicle for tank carriage : AT  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13  
Hazard identification number (Kemler No.) : 90  
Orange plates :



Tunnel restriction code (ADR) : E

#### Transport by sea

Special provisions (IMDG) : 274, 335, 969  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
Special packing provisions (IMDG) : PP1  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP2, TP29  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-F  
Stowage category (IMDG) : A

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### Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197
ERG code (IATA)	: 9L

### 14.7. Maritime transport in bulk according to IMO instruments

IBC code : Not available.

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

##### REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

##### REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

##### PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

##### Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

##### Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

##### Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

#### 15.1.2. National regulations

##### Germany

Water hazard class (WGK)	: WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

# BRAWO LR

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.