

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

### 1.1 product identifier

trade name: HYKA 32 \*  
article number: 63166

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

relevant identified uses  
hydraulic fluid  
PROFESSIONAL, INDUSTRIAL, CONSUMER

### 1.3 details of the supplier of the safety data sheet

KALTENBACH GMBH & CO. KG  
BLASIRING 4  
79539 LÖRRACH

Telephone +49 - 7621 - 175 - 323  
e-mail (competent person) M.GUENTERT@KALTENBACH.DE

### 1.4 emergency telephone number

only available during office hours: 08.00-16.00

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification acc. to GHS

Section	Hazard class	Category	Hazard class and category	Hazard statement
4.1C	hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects  
Spillage and fire water can cause pollution of watercourses.

### 2.2 Label elements

Labelling

- Signal word not required
- Pictograms not required

- Hazard statements

H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

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according to Regulation (EC) No. 1907/2006 (REACH)



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- P103 Read carefully and follow all instructions.  
P273 Avoid release to the environment.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## 2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Hazardous ingredients acc. to GHS					
Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
2,6-di-tert-butylphenol	CAS No 128-39-2  EC No 204-884-0	< 0.25	Skin Irrit. 2 / H315 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410		
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	CAS No 1213789-63-9  EC No 627-034-4	< 0.25	Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318 STOT SE 3 / H335 STOT RE 2 / H373 Asp. Tox. 1 / H304 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410		
Name of substance	Specific Conc. Limits		M-Factors	ATE	Exposure route
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)- alkylamines	-		M-factor (acute) = 10 M-factor (chronic) = 10	1,689 mg/kg	oral

For full text of abbreviations: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

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Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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

Symptoms and effects are not known to date.

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

none

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

Suitable extinguishing media

Fire extinguishing powder, Carbon dioxide (CO<sub>2</sub>), Sand

Unsuitable extinguishing media

Water jet

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

Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

**5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

**6.2 Environmental precautions**

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

**6.3 Methods and material for containment and cleaning up**

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

**6.4 Reference to other sections**

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Never place chemicals in containers that are normally used for food or drink.

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

Control of effects

No special measures are necessary. No hazardous reaction when handled and stored according to provisions.

Protect against external exposure, such as

Heat, Frost

### 7.3 Specific end use(s)

See section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)											
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Ceiling-C [ppm]	Ceiling-C [mg/m <sup>3</sup> ]	Notation	Source
GB	diphenylamine	122-39-4	WEL		10		20				EH40/2005

#### Notation

Ceiling-C

ceiling value is a limit value above which exposure should not occur

STEL

short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA

time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

#### Remarks

Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified). Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified).

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
2,6-di-tert-butylphenol	128-39-2	DNEL	70.61 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
2,6-di-tert-butylphenol	128-39-2	DNEL	11.25 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	DNEL	0.38 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects

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(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	DNEL	1 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	DNEL	1 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects

### Remarks

The product is not intended for consumer use.

### Relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
2,6-di-tert-butylphenol	128-39-2	PNEC	0.001 mg/l	aquatic organisms	freshwater	short-term (single instance)
2,6-di-tert-butylphenol	128-39-2	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
2,6-di-tert-butylphenol	128-39-2	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2,6-di-tert-butylphenol	128-39-2	PNEC	0.317 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2,6-di-tert-butylphenol	128-39-2	PNEC	0.032 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2,6-di-tert-butylphenol	128-39-2	PNEC	0.697 mg/kg	terrestrial organisms	soil	short-term (single instance)
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	PNEC	0.26 µg/l	aquatic organisms	freshwater	short-term (single instance)
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	PNEC	0.026 µg/l	aquatic organisms	marine water	short-term (single instance)
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	PNEC	550 µg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	PNEC	3.76 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	PNEC	0.376 mg/kg	aquatic organisms	marine sediment	short-term (single instance)

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saturated and unsaturated)-alkylamines						
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	PNEC	10 mg/kg	terrestrial organisms	soil	short-term (single instance)

## 8.2 Exposure controls

Appropriate engineering controls

No special handling advices are necessary.

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection. Use protective eyewear to guard against splash of liquids.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Type of material (long-term)

NBR: acrylonitrile-butadiene rubber (0,425 mm), Breakthrough times of the glove material: 240-480 min

- Type of material (short-term)

NBR: acrylonitrile-butadiene rubber (0,12 mm), Breakthrough times of the glove material: 10-30 min

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

not required

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

physical state	liquid
colour	light yellow
odour	characteristic
melting point/freezing point	not determined
boiling point or initial boiling point and boiling range	not determined
flammability	this material is combustible, but will not ignite readily
lower and upper explosion limit	not determined
flash point	230 °C
auto-ignition temperature	not determined
decomposition temperature	not relevant

pH (value)	not determined
kinematic viscosity	32 mm <sup>2</sup> /s at 40 °C
Solubility(ies) water solubility	insoluble
Partition coefficient partition coefficient n-octanol/water (log value)	this information is not available
vapour pressure	not determined
Density and/or relative density density	not determined
relative vapour density	information on this property is not available
particle characteristics	not relevant (liquid)

## 9.2 Other information

information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
other safety characteristics	there is no additional information

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.  
Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification acc. to GHS

Acute toxicity

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The classification criteria for these hazard classes are not met.

Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
2,6-di-tert-butylphenol	128-39-2	oral	LD50	>5,000 mg/kg	rat
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	oral	LD50	1,689 mg/kg	rat
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	dermal	LD50	>2,000 mg/kg	rat

#### Skin corrosion/irritation

The classification criteria for this hazard class are not met.

#### Serious eye damage/eye irritation

The classification criteria for this hazard class are not met.

#### Respiratory or skin sensitisation

The classification criteria for these hazard classes are not met.

#### Germ cell mutagenicity

The classification criteria for this hazard class are not met.

#### Carcinogenicity

The classification criteria for this hazard class are not met.

#### Reproductive toxicity

The classification criteria for this hazard class are not met.

#### Specific target organ toxicity - single exposure

The classification criteria for this hazard class are not met.

#### Specific target organ toxicity - repeated exposure

The classification criteria for this hazard class are not met.

#### Aspiration hazard

The classification criteria for this hazard class are not met.

## 11.2 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Harmful to aquatic life with long lasting effects.

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2,6-di-tert-butylphenol	128-39-2	LC50	1.1 mg/l	fish	7 d
2,6-di-tert-butylphenol	128-39-2	EC50	0.14 mg/l	aquatic invertebrates	21 d
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	EC50	0.24 mg/l	aquatic invertebrates	21 d

### 12.2 Persistence and degradability

Data are not available.

Degradability of components of the mixture
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Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
2,6-di-tert-butylphenol	128-39-2	oxygen depletion	≥12 – ≤24 %	28 d		ECHA
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	carbon dioxide generation	18 %	6 d		ECHA
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	1213789-63-9	oxygen depletion	34 %	5 d		ECHA

### 12.3 Bioaccumulative potential

Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
2,6-di-tert-butylphenol	128-39-2		4.5 (24 °C)	

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0,1%.

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0,1%.

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Relevant provisions relating to waste

#### Waste code (EU)

- Product

13 01 10\* mineral based non-chlorinated hydraulic oils

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

- 14.1 UN number or ID number** not subject to transport regulations
- 14.2 UN proper shipping name** not relevant
- 14.3 Transport hazard class(es)** none
- 14.4 Packing group** not assigned
- 14.5 Environmental hazards** non-environmentally hazardous acc. to the dangerous goods regulations
- 14.6 Special precautions for user**  
There is no additional information.
- 14.7 Maritime transport in bulk according to IMO instruments**  
The cargo is not intended to be carried in bulk.

### Information for each of the UN Model Regulations

#### **International Maritime Dangerous Goods Code (IMDG) - Additional information**

Not subject to IMDG.

#### **International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information**

Not subject to ICAO-IATA.

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**Relevant provisions of the European Union (EU)**

### **Seveso Directive**

2012/18/EU (Seveso III)

No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
	not assigned		

### **Industrial Emissions Directive (IED)**

VOC content 0 %

### **Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)**

none of the ingredients are listed

### **Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**

none of the ingredients are listed

### **Water Framework Directive (WFD)**

none of the ingredients are listed

### **Regulation on persistent organic pollutants (POP)**

None of the ingredients are listed.

### **National inventories**

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Country	Inventory	Status
AU	AIIC	not all ingredients are listed
CA	DSL	not all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	not all ingredients are listed
EU	REACH Reg.	all ingredients are listed or exempt from listing
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	not all ingredients are listed
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	not all ingredients are listed
US	TSCA	all ingredients are listed

**Legend**

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

## 15.2 Chemical safety assessment

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

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ .	yes
3.2		Hazardous ingredients acc. to GHS: change in the listing (table)	yes
3.2		Hazardous ingredients acc. to GHS: change in the listing (table)	yes
6.2	Environmental precautions: Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.	Environmental precautions: Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.	yes
8.1	Control parameters: This information is not available.	Control parameters	yes

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8.1		Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)	yes
8.1		Remarks: Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified). Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified).	yes
8.2	Respiratory protection: not required If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.	Respiratory protection: not required	yes
12.5	Results of PBT and vPvB assessment: Data are not available.	Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ .	yes
12.6	Endocrine disrupting properties: None of the ingredients are listed.	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ .	yes
14.7	Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information: Not subject to ADR, RID and ADN.		yes
15.1	Restrictions according to REACH, Annex XVII		yes
15.1		Dangerous substances with restrictions (REACH, Annex XVII): change in the listing (table)	yes
15.1	List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list: none of the ingredients are listed		yes
15.1	Regulation concerning the export and import of hazardous chemicals (PIC): Chemicals subject to the international prior informed consent (PIC) procedure (the 'PIC procedure').		yes
15.1		National inventories: change in the listing (table)	yes
16		Abbreviations and acronyms: change in the listing (table)	yes
16	Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU. Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).	Key literature references and sources for data: Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).	yes

## Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the

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	International Carriage of Dangerous Goods by Road)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure

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STOT SE	Specific target organ toxicity - single exposure
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

**Key literature references and sources for data**

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

**Classification procedure**

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**List of relevant phrases (code and full text as stated in section 2 and 3)**

Code	Text
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Disclaimer**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.