



# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

## OPN-Developer white

Version number: 5.0  
Revision: 2023-07-20

Date of compilation: 2015-05-29

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

1.1	Product identifier	
	Trade name	OPN-Developer white
	Unique formula identifier (UFI)	40DQ-65PK-600C-5AYU
	Other means of identification	
	Article number	64050
	Tariff No	38249097
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Relevant identified uses	Industrial use Professional use Consumer use (private households)
	Sector of use	Solvent based developer
	Uses advised against	Do not use for products which come into contact with foodstuffs
1.3	Details of the supplier of the safety data sheet	
	OPN-CHEMIE GmbH In der Au 14 57290 Neunkirchen	
	www.opn-chemie.de	
	Competent person responsible for the safety data sheet	Barbara Angelika Gros-Petri
	e-mail (competent person)	baerbel.petri@opn-chemie.de
1.4	Emergency telephone number	
	Emergency information service	Poison Information Center Freiburg +49(0)761/19240

### SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Hazard class and category	Hazard statement
2.3	Aerosols	Aerosol 1	H222,H229
3.3	Serious eye damage/eye irritation	Eye Irrit. 2	H319
3.8D	Specific target organ toxicity - single exposure (narcotic effects, drowsiness)	STOT SE 3	H336

Code	Supplemental hazard information
EUH066	Repeated exposure may cause skin dryness or cracking

#### Remarks

For full text of abbreviations: see SECTION 16

- 2.2 Label elements  
Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word Danger

#### Pictograms

GHS02, GHS07



#### Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

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### Precautionary statements

P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 Do not spray on an open flame or other ignition source.  
P251 Do not pierce or burn, even after use.  
P261 Avoid breathing spray.  
P271 Use only outdoors or in a well-ventilated area.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTER/doctor if you feel unwell.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.  
P501 Dispose of contents / container in accordance with national regulations of the disposal.

### Additional labelling requirements

EUH066 Repeated exposure may cause skin dryness or cracking.  
Buildup of explosive mixtures possible without sufficient ventilation.

### Hazardous ingredients for labelling

Acetone  
Propan-2-ol

### 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

Description of the mixture

Mixture of substances listed below with nonhazardous additions

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Butane	CAS No 106-97-8  EC No 203-448-7  REACH Reg. No 01-2119474691- 32-xxxx	25 – < 50	Flam. Gas 1A / H220 Press. Gas L / H280	
Propan-2-ol	CAS No 67-63-0  EC No 200-661-7  REACH Reg. No 01-2119457558- 25-xxxx	10 – < 25	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	
Acetone	CAS No 67-64-1  EC No 200-662-2  REACH Reg. No 01-2119471330- 49-xxxx 01-2119498062- 37-xxxx	10 – < 25	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	



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Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Propane	CAS No 74-98-6  EC No 200-827-9  REACH Reg. No 01-2119486944- 21-xxxx	10 – < 25	Flam. Gas 1A / H220 Press. Gas C / H280	
Isobutane	CAS No 75-28-5  EC No 200-857-2  REACH Reg. No 01-2119485395- 27-xxxx	1 – < 5	Flam. Gas 1A / H220 Press. Gas C / H280	

### 3.3 Remarks

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. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

#### 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

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

Narcotic effects.

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

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Water spray. BC-powder.

Unsuitable extinguishing media

Water jet.

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

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.

Hazardous combustion products

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.

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### 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.
- 6.3 Methods and material for containment and cleaning up  
Advice on how to contain a spill  
Covering of drains.  
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.

### SECTION 7: Handling and storage

- 7.1 Precautions for safe handling  
Recommendations  
Measures to prevent fire as well as aerosol and dust generation  
Use local and general ventilation. Use only in well-ventilated areas.  
Advice on general occupational hygiene  
Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.
- 7.2 Conditions for safe storage, including any incompatibilities  
Managing of associated risks  
Storage class (LGK)  
2 B  
• Flammability hazards  
Do not spray on an open flame or other ignition source. Protect from sunlight.  
Consideration of other advice  
• Packaging compatibilities  
Only packagings which are approved (e.g. acc. to ADR) may be used.
- 7.3 Specific end use(s)  
No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters  
National limit values

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> ]	Source
DE	Butane	106-97-8	AGW	1,000	2,400	4,000	9,600	TRGS 900
DE	Propan-2-ol	67-63-0	AGW	200	500	400	1,000	TRGS 900
DE	Acetone	67-64-1	AGW	500	1,200	1,000	2,400	TRGS 900
DE	Propane	74-98-6	AGW	1,000	1,800	4,000	7,200	TRGS 900

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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> ]	Source
DE	Isobutane	75-28-5	AGW	1,000	2,400	4,000	9,600	TRGS 900
EU	Acetone	67-64-1	IOELV	500	1,210			2000/39/EC

### Notation

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)

### Biological limit values

Biological limit values						
Country	Name of agent	Parameter	Notation	Identifier	Value	Source
DE	2-Propanol	Acetone		BLV	25 mg/l	TRGS 903
DE	Aceton	Aceton		BAT	50 mg/l	DFG
DE	Aceton	Aceton		BAT (BAR)	2.5 mg/l	DFG
DE	Acetone	Acetone		BLV	80 mg/l	TRGS 903

### Relevant DNELs/DMELs/PNECs and other threshold levels

#### Relevant DNELs of components of the mixture

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Acetone	67-64-1	DNEL	1,210 mg/m <sup>3</sup>	Human, inhalatory	Worker (industry)	Chronic - systemic effects
Acetone	67-64-1	DNEL	2,420 mg/m <sup>3</sup>	Human, inhalatory	Worker (industry)	Acute - local effects
Acetone	67-64-1	DNEL	186 mg/kg bw/day	Human, dermal	Worker (industry)	Chronic - systemic effects

#### Relevant PNECs of components of the mixture

Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Acetone	67-64-1	PNEC	100 mg/l	Microorganisms	Sewage treatment plant (STP)	Short-term (single instance)
Acetone	67-64-1	PNEC	21 mg/l	Aquatic organisms	Water	Intermittent release
Acetone	67-64-1	PNEC	10.6 mg/l	Aquatic organisms	Freshwater	Short-term (single instance)
Acetone	67-64-1	PNEC	1.06 mg/l	Aquatic organisms	Marine water	Short-term (single instance)
Acetone	67-64-1	PNEC	100 mg/l	Aquatic organisms	Sewage treatment plant (STP)	Short-term (single instance)
Acetone	67-64-1	PNEC	30.4 mg/kg	Aquatic organisms	Freshwater sediment	Short-term (single instance)

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Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Acetone	67-64-1	PNEC	3.04 mg/kg	Aquatic organisms	Marine sediment	Short-term (single instance)
Acetone	67-64-1	PNEC	29.5 mg/kg	Terrestrial organisms	Soil	Short-term (single instance)
Propan-2-ol	67-63-0	PNEC	2,251 mg/l	Microorganisms	Sewage treatment plant (STP)	Short-term (single instance)
Propan-2-ol	67-63-0	PNEC	160 mg/kg	Aquatic organisms	Water	Short-term (single instance)

- 8.2 Exposure controls  
Appropriate engineering controls  
General ventilation.  
Individual protection measures (personal protective equipment)  
Eye/face protection  
Do not spray in eyes. If required use tight-fitting goggles.  
Skin protection  
Hand protection  
Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.  
Type of material  
NR: natural rubber, latex.  
Material thickness  
> 0,7 mm  
Breakthrough times of the glove material  
>480 minutes (permeation: level 6)  
Other protection measures  
Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.  
Respiratory protection  
Operate if possible out of doors or in a well-ventilated place. In case of inadequate ventilation wear respiratory protection. Type: A-P2 (combined filters against particles and organic gases and vapours, colour code: Brown/White).  
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                          | Aerosol (Spray aerosol)                           |
| Colour                                  | White   |
| Odour                                   | Solvent like                                      |
| Initial boiling point and boiling range | Not applicable, as aerosol.*                      |
| Flammability (solid, gas)               | flammable aerosol in accordance with GHS criteria |
| Explosive limits                        | 2 vol% - 15 vol%                                  |
| Flash point                             | Not applicable, as aerosol.*                      |
| Water solubility                        | Insoluble   |
| Vapour pressure                         | 4 bar at 20 °C<br>7 bar at 50 °C                  |
| Density                                 | 0,64 g/ml at 20 °C                                |

- 9.2 Other information  
Other safety characteristics

\* The finished mixture in an aerosol container is formed after addition of propellant. Several details are not measurable in an hermetic closed, pressurized container.

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### SECTION 10: Stability and reactivity

- 10.1 Reactivity  
Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.
- 10.2 Chemical stability  
See below "Conditions to avoid".
- 10.3 Possibility of hazardous reactions  
No known hazardous reactions.
- 10.4 Conditions to avoid  
Do not spray on an open flame or other ignition source. Keep away from heat.  
Hints to prevent fire or explosion  
Protect from sunlight.  
Physical stresses which might result in a hazardous situation and have to be avoided  
High temperatures.
- 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 hazard classes as defined in Regulation (EC) No 1272/2008  
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 according to GHS (1272/2008/EC, CLP)  
Acute toxicity  
Shall not be classified as acutely toxic.  
Skin corrosion/irritation  
Shall not be classified as corrosive/irritant to skin.  
Serious eye damage/eye irritation  
Causes serious eye irritation.  
Respiratory or skin sensitisation  
Shall not be classified as a respiratory or skin sensitiser.  
Germ cell mutagenicity  
Shall not be classified as germ cell mutagenic.  
Carcinogenicity  
Shall not be classified as carcinogenic.  
Reproductive toxicity  
Shall not be classified as a reproductive toxicant.  
• Specific target organ toxicity - single exposure  
May cause drowsiness or dizziness.  
• Specific target organ toxicity - repeated exposure  
Shall not be classified as a specific target organ toxicant (repeated exposure).  
Aspiration hazard  
Shall not be classified as presenting an aspiration hazard.  
Other information  
Repeated exposure may cause skin dryness or cracking.
- 11.2 Information on other hazards  
There is no additional information.

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### SECTION 12: Ecological information

#### 12.1 Toxicity

Ordinance on systems for handling water-polluting substances (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK (Germany) 1, slightly hazardous to water

#### 12.2 Persistence and degradability

Data are not available.

#### 12.3 Bioaccumulative potential

Data are not available.

#### 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  $\geq 0,1\%$ .

#### 12.6 Endocrine disrupting properties

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

#### 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

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

List of wastes

15 01 04 Metallic packaging

15 01 10 Packaging containing residues of or contaminated by dangerous substances

16 05 04 Containing hazardous gases in pressure containers (including halons)

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

ADR/RID/ADN

UN  
1950

IMDG-Code

UN  
1950

ICAO-TI

UN  
1950

#### 14.2 UN proper shipping name

ADR/RID/ADN

AEROSOLS

IMDG-Code

AEROSOLS

ICAO-TI

Aerosols, flammable

#### 14.3 Transport hazard class(es)

ADR/RID/ADN

2  
(2.1)

IMDG-Code

2.1

ICAO-TI

2.1

#### 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

Provisions for dangerous goods (ADR) should be complied within the premises.



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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

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) Additional information

Classification code 5F

Danger label(s) 2.1



Special provisions (SP) 190, 327, 344, 625

Excepted quantities (EQ) E0

Limited quantities (LQ) 1 L

Transport category (TC) 2

Tunnel restriction code (TRC) D

International Maritime Dangerous Goods Code (IMDG) Additional information

Marine pollutant -

Danger label(s) 2.1



Special provisions (SP) 63, 190, 277, 327, 344, 381, 959

Excepted quantities (EQ) E0

Limited quantities (LQ) 1 L

EmS F-D, S-U

Stowage category -

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

Danger label(s) 2.1



Special provisions (SP) A145, A167

Excepted quantities (EQ) E0

Limited quantities (LQ) 30 kg

## 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)

Restrictions according to REACH, Annex XVII

none of the ingredients are listed

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

none of the ingredients are listed

Directive 75/324/EEC relating to aerosol dispensers

Classification of the gas/aerosol Extremely flammable

Labelling Keep out of reach of children. Pressurized container: may burst if heated. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F.

Additional information -

Industrial Emissions Directive (IED)

VOC content 94.69 %

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

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Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013

Meldepflichtige Ausgangsstoffe für Explosivstoffe gemäß Anhang II:

Substance is listed: Aceton (CAS-Nr. 67-64-1).

National regulations (Germany)

Ordinance on systems for handling water-polluting substances (Ordinance on facilities for handling substances hazardous to water)(AwSV)

Water hazard class 1 (slightly hazardous to water)

Technical instructions on air quality control (Germany)

Number	Group of substances	Class	Conc.	Mass flow	Mass concentration	Notation
5.2.5	Organic substances		≥ 25 wt%	0.5 kg/h	50 mg/m <sup>3</sup>	3)

Notation

3) A total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 2 B (Aerosol dispensers and lighters)

National inventories

Country	Inventory	Status
EU	REACH Reg.	Not all ingredients are listed

Legend

REACH Reg. REACH registered substances

### 15.2 Chemical safety assessment

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

## SECTION 16: Other information

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

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
8.1		Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)	Yes
8.1		Biological limit values: change in the listing (table)	Yes
16.1	Indication of changes (revised safety data sheet): Alignment to regulation. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU  Restructuring: section 9, section 14 Insertion: UFI: 40DQ-65PK-600C-5AYU		Yes

### 16.2 Abbreviations and acronyms

2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC.
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways).
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road).
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN).
AGW	Workplace exposure limit.
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances).
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
DFG	Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim.
DGR	Dangerous Goods Regulations (see IATA/DGR).

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DMEL	Derived Minimal Effect Level.
DNEL	Derived No-Effect Level.
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).
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances.
EmS	Emergency Schedule.
Eye Dam.	Seriously damaging to the eye.
Eye Irrit.	Irritant to the eye.
Flam. Gas	Flammable gas.
Flam. Liq.	Flammable liquid.
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.
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air.
IMDG	International Maritime Dangerous Goods Code.
IMDG-Code	International Maritime Dangerous Goods Code.
IOELV	Indicative occupational exposure limit value.
LGK	Lagerklasse (storage class according to TRGS 510, Germany).
NLP	No-Longer Polymer.
PBT	Persistent, Bioaccumulative and Toxic.
PNEC	Predicted No-Effect Concentration.
Ppm	Parts per million.
Press. Gas	Gas under pressure.
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail).
STEL	Short-term exposure limit.
STOT SE	Specific target organ toxicity - single exposure.
SVHC	Substance of Very High Concern.
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany).
TRGS 900	Arbeitsplatzgrenzwerte (TRGS 900).
TRGS 903	Biologische Grenzwerte (TRGS 903).
TWA	Time-weighted average.
VOC	Volatile Organic Compounds.
VPvB	Very Persistent and very Bioaccumulative.

### 16.3 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).

### 16.4 Classification procedure

Physical and chemical properties. The classification is based on tested mixture.  
Health hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

#### Disclaimer

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