

**OKS 589**

Version 1.4      Revision Date: 11.05.2022      Date of last issue: 20.08.2018      Print Date: 12.05.2022  
Date of first issue: 28.05.2014

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

Product name : OKS 589

**Manufacturer or supplier's details**

Company name of supplier : OKS Spezialschmierstoffe GmbH  
Ganghoferstr. 47  
D-82216 Maisach-Gernlinden  
Tel.: +49 8142 3051 500  
Fax.: +49 8142 3051 599  
info@oks-germany.com

E-mail address of person responsible for the SDS : mcm@oks-germany.com  
Material Compliance Management

Emergency telephone number : +7 495 628 1687  
+49 8142 3051 517

**Recommended use of the chemical and restrictions on use**

Recommended use : Lubricant

Restrictions on use : Restricted to professional users.

**2. HAZARDS IDENTIFICATION**

**GHS Classification (According to GOST 32423, GOST 32424 and GOST 32425)**

Flammable liquids : Category 2  
Skin irritation : Category 3  
Serious eye damage : Category 1  
Specific target organ toxicity - single exposure : Category 3 (Central nervous system)  
Short-term (acute) aquatic hazard : Category 3

**GHS-Labeling (According to GOST 31340)**

Hazard pictograms :   

Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.

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H316 Causes mild skin irritation.  
H318 Causes serious eye damage.  
H336 May cause drowsiness or dizziness.  
H402 Harmful to aquatic life.

Precautionary statements :

**Prevention:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.  
P370 + P378 In case of fire: Use alcohol-resistant foam, carbon dioxide or water mist to extinguish.

**Storage:**

P403 + P235 Store in a well-ventilated place. Keep cool.

**Other hazards which do not result in classification**

None known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance/mixture : Mixture

Chemical nature : Solvent mixture  
epoxy resin  
solid lubricant  
PTFE  
Molybdenum disulfide

**Components**

Chemical name	Concentration (% w/w)	Occupational Exposure Limits		CAS-No.	EC-No.
		MAC value mg/m3 / TSEL value	Hazard Class		
n-butyl acetate	>= 30 - < 50	MPC-TWA: 50 mg/m3 Data Source: RU OEL	4	123-86-4	204-658-1
		MPC-STEL: 200 mg/m3	4		

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		Data Source: RU OEL			
butanone	>= 20 - < 30	MPC-TWA: 200 mg/m3 Data Source: RU OEL	4	78-93-3	201-159-0
		MPC-STEL: 400 mg/m3 Data Source: RU OEL	4		
ethyl acetate	>= 10 - < 20	MPC-TWA: 50 mg/m3 Data Source: RU OEL	4	141-78-6	205-500-4
		MPC-STEL: 200 mg/m3 Data Source: RU OEL	4		
Ethylene, tetrafluoro-, polymer	>= 1 - < 10	MPC-TWA: 10 mg/m3 Data Source: RU OEL	f, 4	9002-84-0	618-337-2
molybdenum disulphide	>= 1 - < 10	MPC-TWA: 1 mg/m3 Data Source: RU OEL	3	1317-33-5	215-263-9
		MPC-STEL: 6 mg/m3 Data Source: RU OEL	3		
		MPC-TWA: 1 mg/m3 Data Source: RU OEL	3		
		MPC-STEL: 6 mg/m3 Data Source: RU OEL	3		

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butan-1-ol	$\geq 3 - < 10$	MPC-TWA: 10 mg/m <sup>3</sup> Data Source: RU OEL  MPC-STEL: 30 mg/m <sup>3</sup> Data Source: RU OEL	3  3	71-36-3	200-751-6
aluminium dihydrogen triphosphate	$\geq 1 - < 10$	MPC-STEL: 10 mg/m <sup>3</sup> Data Source: RU OEL	4	13939-25-8	237-714-9
ethylene glycol monobutyl ether	$\geq 1 - < 10$	MPC-STEL: 5 mg/m <sup>3</sup> Data Source: RU OEL	3	111-76-2	203-905-0

**4. FIRST AID MEASURES**

- If inhaled : Call a physician or poison control centre immediately.  
Remove person to fresh air. If signs/symptoms continue, get medical attention.  
Keep patient warm and at rest.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.  
Get medical attention immediately if irritation develops and persists.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.  
Get medical attention immediately.
- If swallowed : Move the victim to fresh air.  
If accidentally swallowed obtain immediate medical attention.  
If unconscious, place in recovery position and seek medical advice.

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Keep respiratory tract clear.  
Do NOT induce vomiting.  
Rinse mouth with water.  
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : Central nervous system depression  
Can be absorbed through skin.  
Inhalation may provoke the following symptoms:  
Unconsciousness  
Dizziness  
Drowsiness  
Headache  
Nausea  
Tiredness  
Skin contact may provoke the following symptoms:  
Erythema

Notes to physician : Treat symptomatically.

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**5. FIREFIGHTING MEASURES**

**Flammable properties**

Flash point : 0,5 °C  
(1.013 hPa)  
Method: Abel-Pensky, closed cup

Ignition temperature : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flammability (solid, gas) : Not applicable

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Do not let product enter drains.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Hazardous combustion products : Carbon oxides  
Sulphur oxides  
Oxides of phosphorus  
Halogenated compounds

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Metal oxides

- Further information : Standard procedure for chemical fires.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Cool containers/tanks with water spray.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.  
Exposure to decomposition products may be a hazard to health.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Use personal protective equipment.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Do not breathe vapours or spray mist.  
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).  
Non-sparking tools should be used.

**7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Keep away from heat and sources of ignition.
- Advice on safe handling : Use only in an area containing explosion proof equipment.  
Do not use in areas without adequate ventilation.  
Do not breathe vapours or spray mist.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Keep away from fire, sparks and heated surfaces.  
Smoking, eating and drinking should be prohibited in the application area.  
Wash hands and face before breaks and immediately after

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handling the product.  
 Ensure all equipment is electrically grounded before beginning transfer operations.  
 Do not get in eyes or mouth or on skin.  
 Do not get on skin or clothing.  
 Do not ingest.  
 Do not use sparking tools.  
 Do not enter areas where used or stored until adequately ventilated.  
 Do not repack.  
 Do not re-use empty containers.  
 These safety instructions also apply to empty packaging which may still contain product residues.  
 Keep container closed when not in use.

Conditions for safe storage : Store in original container.  
 Keep container closed when not in use.  
 Keep in a cool place away from oxidizing agents.  
 Keep in a dry, cool and well-ventilated place.  
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
 Store in accordance with the particular national regulations.  
 Keep in properly labelled containers.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Data Source
n-butyl acetate	123-86-4	STEL	150 ppm 723 mg/m <sup>3</sup>	2019/1831/EU (2019-10-31)
		TWA	50 ppm 241 mg/m <sup>3</sup>	2019/1831/EU (2019-10-31)
		MPC-TWA (vapour and/or gas)	50 mg/m <sup>3</sup>	RU OEL (2021-02-03)
Further information: Class 4 - Low hazard				
		MPC-STEL (vapour and/or gas)	200 mg/m <sup>3</sup>	RU OEL (2021-02-03)
Further information: Class 4 - Low hazard				
butanone	78-93-3	TWA	200 ppm 600 mg/m <sup>3</sup>	2000/39/EC (2000-06-16)
		STEL	300 ppm 900 mg/m <sup>3</sup>	2000/39/EC (2000-06-16)
		MPC-TWA	200 mg/m <sup>3</sup>	RU OEL

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		(vapour and/or gas)		(2021-02-03)
	Further information: Class 4 - Low hazard			
		MPC-STEL (vapour and/or gas)	400 mg/m3	RU OEL (2021-02-03)
	Further information: Class 4 - Low hazard			
ethyl acetate	141-78-6	STEL	400 ppm 1.468 mg/m3	2017/164/EU (2017-02-01)
		TWA	200 ppm 734 mg/m3	2017/164/EU (2017-02-01)
		MPC-TWA (vapour and/or gas)	50 mg/m3	RU OEL (2021-02-03)
	Further information: Class 4 - Low hazard			
		MPC-STEL (vapour and/or gas)	200 mg/m3	RU OEL (2021-02-03)
	Further information: Class 4 - Low hazard			
Ethylene, tetrafluoro-, polymer	9002-84-0	MPC-TWA (aerosol)	10 mg/m3	RU OEL (2021-02-03)
	Further information: aerosols of predominantly fibrogenic action, Class 4 - Low hazard			
molybdenum disulphide	1317-33-5	MPC-TWA (aerosol)	1 mg/m3	RU OEL (2011-07-12)
	Further information: Class 3 - Dangerous			
		MPC-STEL (aerosol)	6 mg/m3	RU OEL (2011-07-12)
	Further information: Class 3 - Dangerous			
		MPC-TWA (aerosol)	1 mg/m3 (Molybdenum)	RU OEL (2021-02-03)
	Further information: Class 3 - Moderately dangerous			
		MPC-STEL (aerosol)	6 mg/m3 (Molybdenum)	RU OEL (2021-02-03)
	Further information: Class 3 - Moderately dangerous			
butan-1-ol	71-36-3	MPC-TWA (vapour and/or gas)	10 mg/m3	RU OEL (2021-02-03)
	Further information: Class 3 - Moderately dangerous			
		MPC-STEL (vapour and/or gas)	30 mg/m3	RU OEL (2021-02-03)
	Further information: Class 3 - Moderately dangerous			
aluminium dihydrogen triphosphate	13939-25-8	MPC-STEL (aerosol)	10 mg/m3	RU OEL (2021-02-03)
	Further information: Class 4 - Low hazard			
ethylene glycol monobutyl ether	111-76-2	TWA	20 ppm 98 mg/m3	2000/39/EC (2000-06-16)
		STEL	50 ppm 246 mg/m3	2000/39/EC (2000-06-16)
		MPC-STEL	5 mg/m3	RU OEL





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	(vapour and/or gas)	(2021-02-03)
Further information: Class 3 - Moderately dangerous		

**Engineering measures** : Use only in an area equipped with explosion proof exhaust ventilation.  
Handle only in a place equipped with local exhaust (or other appropriate exhaust).

**Personal protective equipment**

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Filter type A-P

Hand protection

Material : butyl-rubber  
Break through time : > 10 min  
Protective index : Class 1

Remarks : Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.

Eye protection : Tightly fitting safety goggles

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid  
Colour : black  
Odour : characteristic  
Odour Threshold : No data available

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pH : Not applicable  
substance/mixture is non-polar/aprotic

Melting point/range : No data available

Boiling point/boiling range : 76 °C

Flash point : 0,5 °C  
(1.013 hPa)  
Method: Abel-Pensky, closed cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Self-ignition : No data available

Upper explosion limit / Upper  
flammability limit : No data available

Lower explosion limit / Lower  
flammability limit : No data available

Vapour pressure : < 1.100 hPa (20 °C)

Relative vapour density : No data available

Relative density : 1,0 (20 °C)  
Reference substance: Water  
The value is calculated

Density : 1,00 g/cm<sup>3</sup> (20 °C)

Bulk density : No data available

Solubility(ies)  
Water solubility : immiscible

Solubility in other solvents : No data available

Partition coefficient: n-  
octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity  
Viscosity, dynamic : No data available



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Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : No data available

Sublimation point : No data available

**10. STABILITY AND REACTIVITY**

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : Heat, flames and sparks.  
Strong sunlight for prolonged periods.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : No decomposition if stored and applied as directed.

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product:**

Acute oral toxicity : Acute toxicity estimate: > 5.000 mg/kg  
Method: Calculation method

Remarks: Effects due to ingestion may include:

Symptoms: Central nervous system depression

Acute inhalation toxicity : Acute toxicity estimate: > 40 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

Remarks: Respiration of solvent vapour may cause dizziness.

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Symptoms: Inhalation may provoke the following symptoms:,  
Dizziness, Drowsiness, Vomiting, Fatigue, Vertigo, Central  
nervous system depression

Acute dermal toxicity : Acute toxicity estimate: > 5.000 mg/kg  
Method: Calculation method

Remarks: Prolonged or repeated skin contact with liquid may  
cause defatting resulting in drying, redness and possible  
blistering.

Symptoms: Skin disorders

**Components:**

**n-butyl acetate:**

Acute oral toxicity : LD50 (Rat): 10.768 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 21 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403  
GLP: yes  
Assessment: The substance or mixture has no acute  
inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 17.600 mg/kg

**butanone:**

Acute oral toxicity : LD50 (Rat): 2.193 mg/kg  
Method: OECD Test Guideline 423  
GLP: yes

Acute inhalation toxicity : LC50 (Rat): 34 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg  
Method: OECD Test Guideline 402

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**ethyl acetate:**

Acute oral toxicity : LD50 (Rat): 5.620 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 20.000 mg/kg

**Ethylene, tetrafluoro-, polymer:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 401

**molybdenum disulphide:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 16.000 mg/kg

**butan-1-ol:**

Acute oral toxicity : LD50 (Rat): 2.292 mg/kg  
Method: OECD Test Guideline 401  
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): > 17,76 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): 3.430 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

**aluminium dihydrogen triphosphate:**

Acute oral toxicity : LD50 Oral (Rat): > 2.500 mg/kg  
Method: OECD Test Guideline 420  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 3,46 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute

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inhalation toxicity

**ethylene glycol monobutyl ether:**

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : LD50 (Guinea pig): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

**Skin corrosion/irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**n-butyl acetate:**

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : Repeated exposure may cause skin dryness or cracking.

**butanone:**

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation

Result : Repeated exposure may cause skin dryness or cracking.

**ethyl acetate:**

Species : Rabbit  
Result : Mild skin irritation

Result : Repeated exposure may cause skin dryness or cracking.

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**Ethylene, tetrafluoro-, polymer:**

Species : Rabbit  
Assessment : No skin irritation  
Result : No skin irritation

**molybdenum disulphide:**

Assessment : No skin irritation  
Result : No skin irritation

**butan-1-ol:**

Species : Rabbit  
Assessment : Irritating to skin.  
Result : Irritating to skin.

**aluminium dihydrogen triphosphate:**

Assessment : No skin irritation  
Result : No skin irritation

**ethylene glycol monobutyl ether:**

Species : Rabbit  
Assessment : Irritating to skin.  
Result : Irritating to skin.

**Serious eye damage/eye irritation**

**Product:**

Remarks : Risk of serious damage to eyes.

**Components:**

**n-butyl acetate:**

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
GLP : yes

**butanone:**

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Species : Rabbit  
Result : Irritating to eyes.  
Assessment : Irritating to eyes.  
Method : OECD Test Guideline 405

**ethyl acetate:**

Result : Irritating to eyes.  
Assessment : Irritating to eyes.

**Ethylene, tetrafluoro-, polymer:**

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation

**molybdenum disulphide:**

Result : No eye irritation  
Assessment : No eye irritation

**butan-1-ol:**

Species : Rabbit  
Result : Risk of serious damage to eyes.  
Assessment : Risk of serious damage to eyes.  
Method : OECD Test Guideline 405  
GLP : yes

**aluminium dihydrogen triphosphate:**

Result : Irritating to eyes.  
Assessment : Irritating to eyes.

**ethylene glycol monobutyl ether:**

Species : Rabbit  
Result : Irritating to eyes.  
Assessment : Irritating to eyes.

**Respiratory or skin sensitisation**

**Product:**

Remarks : This information is not available.



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**Components:**

**n-butyl acetate:**

Test Type : Maximisation Test  
Exposure routes : Dermal  
Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.

**butanone:**

Test Type : Buehler Test  
Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.  
GLP : yes

**ethyl acetate:**

Test Type : Maximisation Test  
Exposure routes : Dermal  
Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.

**Ethylene, tetrafluoro-, polymer:**

Assessment : Did not cause sensitisation on laboratory animals.  
Result : Did not cause sensitisation on laboratory animals.

**molybdenum disulphide:**

Assessment : Does not cause skin sensitisation.  
Result : Does not cause skin sensitisation.

**butan-1-ol:**

Species : Mouse  
Assessment : Did not cause sensitisation on laboratory animals.  
Method : OECD Test Guideline 429  
Result : Did not cause sensitisation on laboratory animals.

**aluminium dihydrogen triphosphate:**

Assessment : Did not cause sensitisation on laboratory animals.

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Result : Did not cause sensitisation on laboratory animals.

**ethylene glycol monobutyl ether:**

Test Type : Maximisation Test  
Species : Guinea pig  
Assessment : Did not cause sensitisation on laboratory animals.  
Result : Did not cause sensitisation on laboratory animals.

**Germ cell mutagenicity**

**Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

**Components:**

**n-butyl acetate:**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Method: OECD Test Guideline 471  
Result: negative

Test Type: Chromosome aberration test in vitro  
Test system: Chinese hamster cells  
Method: OECD Test Guideline 473  
Result: negative

Genotoxicity in vivo : Species: Mouse  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Animal testing did not show any mutagenic effects.

**butanone:**

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

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**molybdenum disulphide:**

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

**ethylene glycol monobutyl ether:**

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

**Carcinogenicity**

**Product:**

Remarks : No data available

**Components:**

**n-butyl acetate:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

**butanone:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

**Ethylene, tetrafluoro-, polymer:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

**molybdenum disulphide:**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

**ethylene glycol monobutyl ether:**

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

**Reproductive toxicity**

**Product:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

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**Components:**

**n-butyl acetate:**

Effects on fertility : Test Type: Two-generation study  
Species: Rat  
Application Route: inhalation (vapour)  
General Toxicity - Parent: NOAEC: 750 mg/l  
General Toxicity F1: NOAEC: 750 mg/l  
General Toxicity F2: NOAEC: 750 mg/l  
Method: OECD Test Guideline 416  
Result: Embryotoxic effects and adverse effects on the offspring were detected.

Reproductive toxicity - Assessment : - Fertility -  
No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.  
- Teratogenicity -  
No toxicity to reproduction

**butanone:**

Reproductive toxicity - Assessment : - Fertility -  
No toxicity to reproduction  
- Teratogenicity -  
No effects on or via lactation

**aluminium dihydrogen triphosphate:**

Reproductive toxicity - Assessment : - Fertility -  
No toxicity to reproduction

**ethylene glycol monobutyl ether:**

Reproductive toxicity - Assessment : - Fertility -  
No toxicity to reproduction  
- Teratogenicity -  
Animal testing did not show any effects on foetal development.

**STOT - single exposure**

**Components:**

**n-butyl acetate:**

Exposure routes : Inhalation

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Target Organs : Central nervous system  
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

**butanone:**

Exposure routes : Inhalation  
Target Organs : Respiratory system  
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects. May cause drowsiness or dizziness.

**ethyl acetate:**

Exposure routes : Inhalation  
Target Organs : Respiratory system  
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

**Ethylene, tetrafluoro-, polymer:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

**molybdenum disulphide:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

**butan-1-ol:**

Exposure routes : Inhalation  
Target Organs : Respiratory system  
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Exposure routes : Inhalation  
Target Organs : Central nervous system  
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

**aluminium dihydrogen triphosphate:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

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**ethylene glycol monobutyl ether:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

**STOT - repeated exposure**

**Components:**

**n-butyl acetate:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**butanone:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**ethyl acetate:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Ethylene, tetrafluoro-, polymer:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**molybdenum disulphide:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**butan-1-ol:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**aluminium dihydrogen triphosphate:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**ethylene glycol monobutyl ether:**

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Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Repeated dose toxicity**

**Product:**

Remarks : This information is not available.

**Components:**

**n-butyl acetate:**

Species : Rat  
NOAEL : 125 mg/kg  
Application Route : Oral

**Aspiration toxicity**

**Product:**

This information is not available.

**Components:**

**n-butyl acetate:**

No aspiration toxicity classification

**butanone:**

No aspiration toxicity classification

**Ethylene, tetrafluoro-, polymer:**

No aspiration toxicity classification

**butan-1-ol:**

No aspiration toxicity classification

**aluminium dihydrogen triphosphate:**

No aspiration toxicity classification

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**ethylene glycol monobutyl ether:**

No aspiration toxicity classification

**Further information**

**Product:**

Remarks : Information given is based on data on the components and the toxicology of similar products.

**Components:**

**molybdenum disulphide:**

Remarks : Information given is based on data on the components and the toxicology of similar products.

**aluminium dihydrogen triphosphate:**

Remarks : Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

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**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish : Remarks: Harmful to aquatic organisms.

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae/aquatic plants : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

**Components:**

**n-butyl acetate:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 18 mg/l  
Exposure time: 96 h



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Test Type: flow-through test  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 44 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 397 mg/l  
Exposure time: 72 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 23 mg/l  
Exposure time: 21 d  
Test Type: Reproduction Test  
GLP: yes

Toxicity to microorganisms : EC50 (Tetrahymena pyriformis): 356 mg/l  
Exposure time: 40 h  
Test Type: Growth inhibition

**butanone:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 2.993 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 308 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 1.972 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to microorganisms : EC50 (Pseudomonas putida): 1.150 mg/l  
Exposure time: 16 h  
Test Type: static test  
Method: DIN 38 412 Part 8

**ethyl acetate:**

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Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 212,5 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 154 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 2.500 mg/l  
Exposure time: 96 h

**molybdenum disulphide:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h

**butan-1-ol:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1.376 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.328 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 225 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 4,1 mg/l  
Exposure time: 21 d  
Test Type: semi-static test  
Method: OECD Test Guideline 211  
GLP: yes

Toxicity to microorganisms : EC10 (Pseudomonas putida): 2.476 mg/l  
Exposure time: 17 h  
Test Type: static test  
Method: DIN 38 412 Part 8

**ethylene glycol monobutyl ether:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.474 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.550 mg/l  
Exposure time: 48 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 1.840 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC (Danio rerio (zebra fish)): > 100 mg/l  
Exposure time: 21 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 100 mg/l  
Exposure time: 21 d  
Test Type: Reproduction Test  
Method: OECD Test Guideline 211

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

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**Components:**

**n-butyl acetate:**

Biodegradability : Primary biodegradation  
Result: rapidly biodegradable  
Biodegradation: 83 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

**butanone:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Result: rapidly biodegradable  
Biodegradation: 98 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D  
GLP: yes

**ethyl acetate:**

Biodegradability : Result: rapidly biodegradable

**butan-1-ol:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Result: rapidly biodegradable  
Biodegradation: > 92 %  
Exposure time: 28 d

**ethylene glycol monobutyl ether:**

Biodegradability : aerobic  
Result: rapidly biodegradable  
Biodegradation: 90 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

**Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

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**Components:**

**n-butyl acetate:**

Partition coefficient: n-octanol/water : log Pow: 2,3 (25 °C)  
pH: 7  
Method: OECD Test Guideline 117  
GLP: yes

**butanone:**

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Partition coefficient: n-octanol/water : log Pow: 0,3 (40 °C)  
Method: OECD Test Guideline 117  
GLP: yes

**ethyl acetate:**

Partition coefficient: n-octanol/water : log Pow: 0,68 (25 °C)

**butan-1-ol:**

Partition coefficient: n-octanol/water : log Pow: 1 (25 °C)  
pH: 7  
Method: OECD Test Guideline 117  
GLP: yes

**ethylene glycol monobutyl ether:**

Bioaccumulation : Bioconcentration factor (BCF): 2,5

Partition coefficient: n-octanol/water : log Pow: 0,81 (25 °C)  
Method: OECD Test Guideline 107

**Mobility in soil**

**Product:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

**Other adverse effects**

**Product:**

Additional ecological : No information on ecology is available.



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information

**Components:**

**n-butyl acetate:**

Results of PBT and vPvB assessment : Non-classified PBT substance Non-classified vPvB substance

**butanone:**

Results of PBT and vPvB assessment : Non-classified PBT substance Non-classified vPvB substance

**Ethylene, tetrafluoro-, polymer:**

Results of PBT and vPvB assessment : Non-classified vPvB substance Non-classified PBT substance

**Hygienic standards:**

**(Allowable concentration in air, water, including fishery waters, soil)**

Components	Air	Water	Soil	Data Source
n-butyl acetate	Concentration that prevents irritation, reflex reactions, odors when exposed to 20-30 minutes - maximum one-time: 0,1 mg/m <sup>3</sup> Limiting health hazard indicator: reflectory Class 4 - low hazard	Maximum Permissible Concentration 0,3 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary and toxicological effects Hazard class: 4 Maximum Allowable Concentration: 0,1 mg/l Limiting health hazard indicator: general sanitary Hazard class: Class 4 - low hazard		List 5
butanone	TSEL value: 0,1 mg/m <sup>3</sup>	Maximum Allowable Concentration: 1 mg/l Limiting health hazard indicator: organoleptic; changes the smell of water		

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		Hazard class: Class 3 - moderately dangerous		
ethyl acetate	Concentration that prevents irritation, reflex reactions, odors when exposed to 20-30 minutes - maximum one-time: 0,1 mg/m <sup>3</sup> Limiting health hazard indicator: reflectory Class 4 - low hazard	Maximum Permissible Concentration 0,2 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary and toxicological effects Hazard class: 4 Maximum Allowable Concentration: 0,2 mg/l Limiting health hazard indicator: sanitary-toxicological Hazard class: Class 2 - highly dangerous		List 5
molybdenum disulphide	Concentration that provides admissible (acceptable) levels of risk when exposed to at least 24 hours - average daily: 0,02 mg/m <sup>3</sup> (Molybdenum) Limiting health hazard indicator: resorptive Class 3 - moderately dangerous			
butan-1-ol	Concentration that prevents irritation, reflex reactions, odors when exposed to 20-30 minutes - maximum one-time: 0,1 mg/m <sup>3</sup> Limiting health hazard indicator: reflectory Class 3 - moderately dangerous	Maximum Permissible Concentration 0,03 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 3 Maximum Permissible Concentration		List 5



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		0,5 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary and toxicological effects Hazard class: 4 Maximum Allowable Concentration: 0,1 mg/l Limiting health hazard indicator: sanitary-toxicological Hazard class: Class 2 - highly dangerous		
ethylene glycol monobutyl ether	TSEL value: 0,5 mg/m <sup>3</sup>	Maximum Permissible Concentration 0,01 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 3		List 5

List 5: Order of the Russian Federal Fisheries Agency "Standards of maximum permissible concentrations of harmful substances in fishery water bodies"

**13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not dispose of with domestic refuse.  
Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.  
Dispose of waste product or used containers according to local regulations.

The following Waste Codes are only suggestions:

Waste Code : used product, unused product



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08 01 11\*, waste paint and varnish containing organic solvents or other hazardous substances

uncleaned packagings  
15 01 10, packaging containing residues of or contaminated by hazardous substances

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**14. TRANSPORT INFORMATION**

**ADR**

UN number : UN 1263  
Proper shipping name : PAINT  
Class : 3  
Packing group : II  
Labels : 3  
Hazard Identification Number : 33  
Tunnel restriction code : (D/E)

**IATA-DGR**

UN/ID No. : UN 1263  
Proper shipping name : Paint  
Class : 3  
Packing group : II  
Labels : Flammable Liquids  
Packing instruction (cargo aircraft) : 364  
Packing instruction (passenger aircraft) : 353

**IMDG-Code**

UN number : UN 1263  
Proper shipping name : PAINT  
  
Class : 3  
Packing group : II  
Labels : 3  
EmS Code : F-E, S-E  
Marine pollutant : no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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**15. REGULATORY INFORMATION**

**National regulatory information**

Federal Law of 10.01.2002 No. 184-FZ "On Technical Regulation".  
Federal Law of 10.01.2002 No. 7-FZ "On Environmental Protection".  
Federal Law of 21.07.1997 No. 116-FZ (amended on 11.06.2021) "On industrial safety of hazardous production facilities".  
Federal Law of 24.06.1998 No. 89-FZ (amended on 02.07.2021) "On production and consumption waste".  
Federal Law of 10.01.2002 No. 7-FZ (amended on 02.07.2021) "On environmental protection".  
Federal Law of 04.05.1999 No. 96-FZ "On the protection of atmospheric air" (as amended on December 8, 2020).  
Federal Law of 30.03.1999 No. 52-FZ (amended on 02.07.2021) "On the Sanitary and Epidemiological Well-Being of the Population" (amended and supplemented, entered into force on 31.10.2021).  
Federal Law of 27.12.2002 No. 184-FZ (amended on 02.07.2021) "On Technical Regulation" (amended and supplemented, entered into force on 01.09.2021).  
TECHNICAL REGULATIONS OF THE CUSTOMS UNION TR CU 030/2012 On requirements for lubricants, oils and special fluids (amended on 03.03.2017).

**16. OTHER INFORMATION**

**List of data sources used in the preparation of the Safety Data Sheet**

GOST 30333-2007. Interstate standard. Safety data sheet for chemical products. Primary requirements.  
GOST 12.1.007-76 Occupational safety standards system. Noxious substances. Classification and general safety requirements  
GOST 12.1.044-89 Occupational safety standards system. Fire and explosion hazard of substances and materials. Nomenclature of indices and methods of their determination  
GOST 14192-96. Interstate standard. Cargo marking. Minsk, 1998.  
GOST 31340-2013. Interstate standard. Precautionary labeling of chemical products. General requirements.  
GOST 32419-2013 Classification of the hazard of chemical products. General requirements.  
GOST 32421-2013 Classification of chemical products, the hazard of which is due to physical and chemical properties. Test methods for explosive chemical products.  
GOST 32423-2013 Hazard classification of mixed chemical products by their effects on the body.  
GOST 32424-2013 Classification of the hazard of chemical products by their impact on the environment. Basic provisions.  
GOST 32425-2013 Hazard classification of mixed chemical products in terms of environmental impact.  
GOST R 53264-2009 Fire fighting equipment. Special protective clothing for firefighters. General technical requirements. Test methods.  
GOST R 53265-2009 Fire fighting equipment. Personal protective equipment for the feet of the firefighter. General technical requirements. Test methods.  
GOST R 53268-2009 Fire fighting equipment. Fire rescue belts. General technical requirements. Test methods.

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GOST R 53269-2009 Fire fighting equipment. Firefighters helmets. General technical requirements. Test methods.  
SanPiN 1.2.3685-21 "Hygienic standards and requirements for ensuring the safety and (or) harmlessness to humans of environmental factors" dated 28.01.2021.  
SanPiN 2.1.3684-21 "Sanitary and epidemiological requirements for the maintenance of the territories of urban and rural settlements, for water bodies, drinking water and drinking water supply, atmospheric air, soils, living quarters, the operation of industrial, public premises, the organization and implementation of sanitary and anti-epidemic (preventive) measures".  
European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). United Nations. New York and Geneva, 20.  
International Maritime Dangerous Goods Code (IMDG-Code).  
Water quality standards for fishery water bodies, including standards for maximum permissible concentrations of harmful substances in the waters of fishery water bodies (approved by order of the Ministry of Agriculture of Russia dated December 13, 2016 No. 552).  
Regulations for the carriage of dangerous goods (Appendix 1 and 2) to the Agreement on International Goods Transport by Rail (SMGS), 2009.  
UN Recommendations on the Transport of Dangerous Goods. Typical rules. Twenty-first revised edition. United Nations, New York and Geneva, 2019.

**Full text of other abbreviations**

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Irrit.	:	Skin irritation
STOT SE	:	Specific target organ toxicity - single exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2017/164/EU	:	Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
2019/1831/EU	:	Europe. Commission Directive 2019/1831/EU establishing a fifth list of indicative occupational exposure limit values
RU OEL	:	Russia. Hygienic standards GN 2.2.5.1313-03 Permissible concentration (MAC) of harmful substances in the air of the working area
RU OEL	:	SanPiN 1.2.3685-21 Table 2.1, Table 2.8, Table 2.16 & Table 2.17 Maximum permissible concentrations (MPC) in the air of the working area
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
2017/164/EU / STEL	:	Short term exposure limit
2017/164/EU / TWA	:	Limit Value - eight hours
2019/1831/EU / TWA	:	Limit Value - eight hours
2019/1831/EU / STEL	:	Short term exposure limit
RU OEL / MPC-STEEL	:	Maximum Permissible Concentration - Short Term Exposure
RU OEL / MPC-TWA	:	Maximum Permissible Concentration - Time Weighted Average
RU OEL / MPC-STEEL	:	Maximum Permissible Concentration - Short Term Exposure
RU OEL / MPC-TWA	:	Maximum Permissible Concentration - Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by

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Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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