OKS 1511

Version	Revision Date:	Date of last issue: 29.11.2024	Print Date:
3.0	18.06.2026	Date of first issue: 15.04.2014	18.06.2026

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

Product name : OKS 1511

Manufacturer or supplier's details

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

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

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

Recommended use of the chemical and restrictions on use

Recommended use : release agent spray

Restrictions on use : Restricted to professional users.

2. HAZARDS IDENTIFICATION

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

Aerosols : Category 1

Skin irritation : Category 2

Reproductive toxicity : Category 2

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

Aspiration hazard : Category 1

Short-term (acute) aquatic hazard : Category 2

Long-term (chronic) aquatic hazard : Category 2

GHS-Labelling (According to GOST 31340)

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Hazard pictograms :

Signal word : Danger

Hazard statements :
H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

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.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.

Storage:

P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical nature : Active agent with propellant and solvent.
Esters

Components

Chemical name	Concentration (% w/w)	Occupational Exposure Limits	CAS-No.	EC-No.

		MAC value mg/m3 / TSEL value	Hazard Class		
butane	>= 50 - < 70	MPC-TWA: 300 mg/m3 Data Source: RU OEL MPC-STEL: 900 mg/m3 Data Source: RU OEL	4 4	106-97-8	203-448-7
propane	>= 10 - < 20	No data available		74-98-6	200-827-9
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane	>= 2,5 - < 10	No data available			926-605-8
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	>= 2,5 - < 10	No data available			921-024-6
cyclohexane	>= 2,5 - < 10	MPC-STEL: 80 mg/m3 Data Source: RU OEL	4	110-82-7	203-806-2
isobutane	>= 1 - < 10	No data available		75-28-5	200-857-2
n-hexane	>= 0,25 - < 1	MPC-TWA: 300 mg/m3 Data Source: RU OEL MPC-STEL: 900 mg/m3 Data Source: RU OEL	4 4	110-54-3	203-777-6

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 off immediately with plenty of water.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
If eye irritation persists, consult a specialist.

If swallowed : Move the victim to fresh air.
If accidentally swallowed obtain immediate medical attention.
Keep respiratory tract clear.
Do NOT induce vomiting.
Rinse mouth with water.
Aspiration hazard if swallowed - can enter lungs and cause damage.

Most important symptoms and effects, both acute and delayed : Inhalation may provoke the following symptoms:
Unconsciousness
Dizziness
Drowsiness
Headache
Nausea
Tiredness
Skin contact may provoke the following symptoms:
Erythema
Aspiration may cause pulmonary oedema and pneumonitis.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
Central nervous system depression
Risk of product entering the lungs on vomiting after ingestion.
Health injuries may be delayed.

Notes to physician : Treat symptomatically.

5. FIREFIGHTING MEASURES

Flammable properties

Flash point : -90 °C

		Method: Abel-Pensky
Ignition temperature	:	No data available
Upper explosion limit / Upper flammability limit	:	15 %(V)
Lower explosion limit / Lower flammability limit	:	0,6 %(V)
Flammability (solid, gas)	:	Extremely flammable aerosol.
Suitable extinguishing media	:	ABC powder
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Fire Hazard Do not let product enter drains. Contains gas under pressure; may explode if heated. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Hazardous combustion products	:	Carbon 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. 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. Only qualified personnel equipped with suitable protective equipment may intervene.
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).
Keep in suitable, closed containers for disposal.
Non-sparking tools should be used.

7. HANDLING AND STORAGE

Advice on safe handling : 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 handling the product.
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.
These safety instructions also apply to empty packaging which may still contain product residues.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
Store in accordance with the particular national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Data Source
butane	106-97-8	MPC-TWA (vapour	300 mg/m3	RU OEL (2025-05-20)

		and/or gas)		
	Further information: Class 4 - Low hazard			
		MPC-STEL (vapour and/or gas)	900 mg/m3	RU OEL (2025-05-20)
	Further information: Class 4 - Low hazard			
cyclohexane	110-82-7	TWA	200 ppm 700 mg/m3	2006/15/EC (2006-02-09)
		MPC-STEL (vapour and/or gas)	80 mg/m3	RU OEL (2025-05-20)
	Further information: Class 4 - Low hazard			
n-hexane	110-54-3	TWA	20 ppm 72 mg/m3	2006/15/EC (2006-02-09)
		MPC-TWA (vapour and/or gas)	300 mg/m3	RU OEL (2025-05-20)
	Further information: Class 4 - Low hazard			
		MPC-STEL (vapour and/or gas)	900 mg/m3	RU OEL (2025-05-20)
	Further information: Class 4 - Low hazard			

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.
Short term only

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 : Safety glasses with side-shields

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures	:	The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hygiene measures	:	Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	aerosol
Colour	:	yellow
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	Not applicable substance/mixture is non-soluble (in water)
Melting point/ range	:	No data available
Boiling point/boiling range	:	-161 °C (1.013 hPa)
Flash point	:	-90 °C Method: Abel-Pensky
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Extremely flammable aerosol.
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	15 %(V)
Lower explosion limit / Lower flammability limit	:	0,6 %(V)
Vapour pressure	:	3.800 hPa (20 °C)

Relative vapour density	:	No data available
Relative density	:	0,62 (20 °C) Reference substance: Water The value is calculated
Density	:	0,62 g/cm3 (20 °C)
Bulk density	:	No data available
Solubility(ies)		
Water solubility	:	insoluble
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
Viscosity, kinematic	:	< 20,5 mm2/s (40 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	No data available
Sublimation point	:	No data available
Metal corrosion rate	:	Not corrosive to metals

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. Risk of receptacle bursting.
Incompatible materials	:	Oxidizing agents

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

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Based on available data, the classification criteria are not met.

Product:

Acute oral toxicity : Remarks: Effects due to ingestion may include:

Symptoms: Central nervous system depression

Acute inhalation toxicity : Remarks: Respiration of solvent vapour may cause dizziness.

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

Acute dermal toxicity : Symptoms: Redness, Local irritation

Components:

butane:

Acute inhalation toxicity : LC50 (Rat): 658 mg/l
Exposure time: 4 h
Test atmosphere: gas

cyclohexane:

Acute oral toxicity : LD50 Oral: > 5.000 mg/kg
Method: OECD Test Guideline 401

isobutane:

Acute inhalation toxicity : LC50 (Rat): 658 mg/l
Exposure time: 4 h
Test atmosphere: gas

n-hexane:

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

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 259,35 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Causes skin irritation.

Product:

Remarks : This information is not available.

Components:

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane:

Species : Rabbit
Result : Skin irritation

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Species : Rabbit
Result : Skin irritation

cyclohexane:

Result : Skin irritation

n-hexane:

Species : Rabbit
Assessment : Irritating to skin.
Method : OECD Test Guideline 404
Result : Irritating to skin.

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Product:

Remarks : Contact with eyes may cause irritation.

Components:

n-hexane:

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

Respiratory or skin sensitisation

Skin sensitisation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Product:

Remarks : This information is not available.

Components:

n-hexane:

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

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Carcinogenicity

Based on available data, the classification criteria are not met.

Product:

Remarks : No data available

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Product:

Effects on fertility	:	Remarks: No data available
Effects on foetal development	:	Remarks: No data available

Components:

n-hexane:

Reproductive toxicity - Assessment	:	- Fertility - Suspected human reproductive toxicant

STOT - single exposure

May cause drowsiness or dizziness.

Product:

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

Components:

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane:

Assessment	:	May cause drowsiness or dizziness.

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Assessment	:	May cause drowsiness or dizziness.

cyclohexane:

Exposure routes	:	Inhalation
Assessment	:	May cause drowsiness or dizziness.

n-hexane:

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.

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Product:

Remarks : No data available

Components:

n-hexane:

Exposure routes : Inhalation
Target Organs : Central nervous system
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

May be fatal if swallowed and enters airways.

Product:

May be fatal if swallowed and enters airways.

Components:

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane:

May be fatal if swallowed and enters airways.

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

May be fatal if swallowed and enters airways.

cyclohexane:

May be fatal if swallowed and enters airways.

n-hexane:
May be fatal if swallowed and enters airways.

Further information

Product:

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : Remarks: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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:

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane:

Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

cyclohexane:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,9 mg/l Exposure time: 48 h
M-Factor (Acute aquatic toxicity)	:	1
M-Factor (Chronic aquatic toxicity)	:	1

Ecotoxicology Assessment

Acute aquatic toxicity	:	Very toxic to aquatic life.
Chronic aquatic toxicity	:	Very toxic to aquatic life with long lasting effects.

n-hexane:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 12,51 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 21,85 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 9,285 mg/l Exposure time: 72 h

Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available
Physico-chemical removability	:	Remarks: No data available

Components:

cyclohexane:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 77 % Exposure time: 28 d

n-hexane:

Biodegradability	:	aerobic Inoculum: activated sludge Result: rapidly biodegradable Biodegradation: 21 % Exposure time: 28 d GLP: yes

Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: No data available

Components:

butane:

Partition coefficient: n-octanol/water	:	log Pow: 2,89 Method: OECD Test Guideline 107

propane:

Partition coefficient: n-octanol/water	:	log Pow: 2,36

cyclohexane:

Bioaccumulation	:	Bioconcentration factor (BCF): 167
Partition coefficient: n-octanol/water	:	log Pow: 3,44 (20 °C)

isobutane:

Partition coefficient: n-octanol/water	:	log Pow: 2,88 Method: OECD Test Guideline 107

n-hexane:

Bioaccumulation	:	Bioconcentration factor (BCF): 501,19
Partition coefficient: n-octanol/water	:	log Pow: 4 (20 °C) pH: 7

Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

Other adverse effects

Product:

Additional ecological information : Toxic to aquatic life with long lasting effects.

Hygienic standards:

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

Components	Air	Water	Soil	Data Source
butane	Concentration that prevents irritation, reflex reactions, odors when exposed to 20-30 minutes - maximum one-time: 200 mg/m3 Limiting health hazard indicator: reflectory Hazard class: Class 4 - low hazard	Maximum Permissible Concentration: 0,05 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 3	No data available	List 1 List 5
propane	No data available	Maximum Permissible Concentration: 0,05 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 3	No data available	List 5
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane	No data available	Maximum Permissible Concentration: 0,05 Milligrams per cubed decimeter Limiting health hazard indicator: toxic	No data available	List 5

		Hazard class: 3		
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	No data available	Maximum Permissible Concentration: 0,05 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 3	No data available	List 5
cyclohexane	Concentration that prevents irritation, reflex reactions, odors when exposed to 20-30 minutes - maximum one-time: 1,4 mg/m3 Limiting health hazard indicator: reflectory Hazard class: Class 4 - low hazard	Maximum Permissible Concentration: 0,01 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 3 Maximum Allowable Concentration: 0,1 mg/l Limiting health hazard indicator: sanitary-toxicological Hazard class: Class 2 - highly dangerous	No data available	List 1 List 4 List 5
isobutane	Concentration that prevents irritation, reflex reactions, odors when exposed to 20-30 minutes - maximum one-time: 15 mg/m3 Limiting health hazard indicator: reflectory Hazard class: Class 4 - low hazard	Maximum Permissible Concentration: 0,05 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 3	No data available	List 1 List 5
n-hexane	Concentration that prevents irritation, reflex reactions, odors when exposed to 20-30 minutes - maximum one-time:	Maximum Permissible Concentration: 0,5 Milligrams per cubed decimeter Limiting health	No data available	List 1 List 5

		60 mg/m3 Limiting health hazard indicator: reflectory Hazard class: Class 4 - low hazard Concentration that provides admissible (acceptable) levels of risk when exposed to at least 24 hours - average daily: 7 mg/m3 Limiting health hazard indicator: reflectory Hazard class: Class 4 - low hazard Concentration that provides permissible (acceptable) levels of risk for chronic (at least 1 year) exposure - average annual: 0,7 mg/m3 Limiting health hazard indicator: reflectory Hazard class: Class 4 - low hazard	hazard indicator: toxic Hazard class: 3		

For explanation of abbreviations see section 16.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and national regulations.

Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Offer empty spray cans to an established disposal company.

Pressurized container: Do not pierce or burn, even after use.

The following Waste Codes are only suggestions:

Waste Code : unused product, packagings not completely emptied
16 05 04**, gases in pressure containers (including halons) containing hazardous substances

14. TRANSPORT INFORMATION

ADR

UN number	:	UN 1950
Proper shipping name	:	AEROSOLS
Class	:	2
Packing group	:	Not assigned by regulation
Labels	:	2.1
Tunnel restriction code	:	(D)
Environmentally hazardous	:	yes

IATA-DGR

UN/ID No.	:	UN 1950
Proper shipping name	:	Aerosols, flammable
Class	:	2.1
Packing group	:	Not assigned by regulation
Labels	:	Flammable Gas
Packing instruction (cargo aircraft)	:	203
Packing instruction (passenger aircraft)	:	203

IMDG-Code

UN number	:	UN 1950
Proper shipping name	:	AEROSOLS (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)
Class	:	2.1
Packing group	:	Not assigned by regulation
Labels	:	2.1
EmS Code	:	F-D, S-U
Marine pollutant	:	yes

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.

OKS 1511

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3.0	18.06.2026	Date of first issue: 15.04.2014	18.06.2026

15. REGULATORY INFORMATION

National regulatory information

Law of the Russian Federation dated 02/07/1992 N 2300-1 (as amended on 08/04/2023) “On the protection of consumer rights”
Federal Law "On Fire Safety" dated December 21, 1994 N 69-FZ
Federal law of 21.07.1997 No. 116-FZ "on industrial safety of dangerous industrial objects"
Federal Law "On Production and Consumption Waste" dated June 24, 1998 N 89-FZ
Federal Law "On the sanitary and epidemiological welfare of the population" dated March 30, 1999 N 52-FZ
Federal Law "On the Protection of Atmospheric Air" dated 04.05.1999 N 96-FZ
Federal Law "On Technical Regulation" dated December 27, 2002 N 184-FZ
Federal Law "On Environmental Protection" dated January 10, 2002 N 7-FZ

International Regulations

Montreal Protocol	:	Not applicable
Rotterdam Convention (Prior Informed Consent)	:	Not applicable
Stockholm Convention (Persistent Organic Pollutants)	:	Not applicable

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 12.1.004-91 System of labor safety standards (SSBT). Fire safety. General requirements.
GOST 12.1.007-76 Occupational safety standards system. Noxious substances. Classification and general safety requirements
GOST 12.1.044-89 SSBT. Fire and explosion hazard of substances and materials. Nomenclature of indicators and methods for their determination.
GOST 12.4.021 System of labor safety standards (SSBT). Ventilation systems. General requirements.
GOST 12.4.137-2001 Special footwear with leather uppers for protection against oil, oil products, acids, alkalis, non-toxic and explosive dust. Technical conditions.
GOST 12.4.252-2013 System of labor safety standards (SSBT). Means of individual protection of hands. Gloves. General technical requirements. Test methods.
GOST 14192-96. Interstate standard. Cargo marking. Minsk, 1998.
GOST 19433-88 Dangerous goods. Classification and labeling.
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 53264-2019 Fire fighting equipment. Special protective clothing for firefighters. General technical requirements. Test methods.
GOST R 53265-2019 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.
GOST R 53269-2019 Fire fighting equipment. Firefighters helmets. General technical requirements. Test methods.
SanPiN 1.2.2353-08 "Carcinogenic factors and basic requirements for the prevention of carcinogenic hazard".
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".
SanPiN 2.2.0.555-96. 2.2. Labor hygiene. Hygienic requirements for working conditions for women. Sanitary rules and regulations.
Carriage of dangerous goods, International maritime dangerous goods (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.
Agreement on International Goods Transport by Rail (SMGS).
UN Recommendations on the Transport of Dangerous Goods. Typical rules. Twenty-second revised edition. United Nations, New York and Geneva, 2021.
Montreal Protocol (Ozone Depleting Substances)
Stockholm Convention (Persistent Organic Pollutants)

Full text of other abbreviations

Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard
Flam. Gas	:	Flammable gases
Flam. Liq.	:	Flammable liquids
Press. Gas	:	Gases under pressure
Repr.	:	Reproductive toxicity
Skin Irrit.	:	Skin irritation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
2006/15/EC	:	Europe. Indicative occupational exposure limit values
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
2006/15/EC / TWA	:	Limit Value - eight hours
RU OEL / MPC-STEL	:	Maximum Permissible Concentration - Short Term Exposure
RU OEL / MPC-TWA	:	Maximum Permissible Concentration - Time Weighted

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		Average
List 1	:	SanPiN 1.2.3685-21 Table 1.1, Table 1.10, & Table 1.11 Maximum permissible concentration (MPC) in the air of urban and rural settlements
List 4	:	SanPiN 1.2.3685-21 Table 3.13, Table 3.15, Table 3.16 & Table 3.17 Maximum permissible concentrations (MPC) of chemicals in the water of drinking systems of centralized, including hot, and non-centralized water supply, water of underground and surface water bodies of domestic drinking and cultural and domestic water use, water of swimming pools, water parks
List 5	:	Order of the Russian Federal Fisheries Agency "Standards of maximum permissible concentrations of harmful substances in fishery water bodies"

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by 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 Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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 - Organisation 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; TECI - 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

|| Relevant changes compared to the last edition are highlighted at the left margin. This version replaces all previous editions.

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