

**OKS 428**

Version	Revision Date:	Date of last issue: 22.01.2021	Print Date:
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**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

Product name : OKS 428

**Manufacturer or supplier's details**

Company name of supplier : OKS Spezialechmierstoffe 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 : Grease

Restrictions on use : Restricted to professional users.


**2. HAZARDS IDENTIFICATION**

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

Skin irritation : Category 3

Skin sensitisation : Category 1

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

Hazard pictograms : 

Signal word : Warning

Hazard statements : H316 Causes mild skin irritation.  
H317 May cause an allergic skin reaction.

Precautionary statements : **Prevention:**  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves.

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**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of water.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.

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

None known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance/mixture : Mixture

Chemical nature : polyalkylene glycol oil  
lithium soap

**Components**

Chemical name	Concentration (% w/w)	Occupational Exposure Limits		CAS-No.	EC-No.
		MAC value mg/m3 / TSEL value	Hazard Class		
1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol	>= 2,5 - < 10	No data available			939-692-2
Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate	>= 1 - < 2,5	No data available			947-946-9
Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol	>= 1 - < 10	No data available			946-010-7

**4. FIRST AID MEASURES**

If inhaled : 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

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- respiration.
- In case of skin contact : Take off all contaminated clothing immediately.  
Wash off immediately with soap and plenty of water.  
Get medical attention immediately if irritation develops and persists.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.
- 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 unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
Do not induce vomiting without medical advice.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.  
Allergic appearance
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

**5. FIREFIGHTING MEASURES**

**Flammable properties**

- Flash point : Not applicable  
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) : Combustible Solids
- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NOx)  
Sulphur oxides  
Oxides of phosphorus

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Metal oxides

- Further information : Standard procedure for chemical fires.
- 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.

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**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Do not breathe vapours, aerosols. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.

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**7. HANDLING AND STORAGE**

- Advice on safe handling : Avoid contact with skin and eyes. For personal protection see section 8. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. 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 repack. 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 dry, cool and well-ventilated place.

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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.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : none

**Personal protective equipment**

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type P

Hand protection

Material : Nitrile 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

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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : paste

Colour : brown

Odour : characteristic

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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 : No data available

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : Combustible Solids

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 : < 0,001 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0,99 (20 °C)  
Reference substance: Water  
The value is calculated

Density : 0,99 g/cm<sup>3</sup> (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

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Viscosity  
Viscosity, dynamic : No data available  
Viscosity, kinematic : Not applicable  
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 : No conditions to be specially mentioned.  
Incompatible materials : No materials to be especially mentioned.  
Hazardous decomposition products : No decomposition if stored and applied as directed.

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product:**

Acute oral toxicity : Remarks: This information is not available.  
Acute inhalation toxicity : Remarks: This information is not available.  
Acute dermal toxicity : Symptoms: Redness, Local irritation

**Components:**

**1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

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

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

**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Acute dermal toxicity : Symptoms: Redness, Local irritation

**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 425  
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 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:**

**1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

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

**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Assessment : Irritating to skin.  
Result : Irritating to skin.

Remarks : Irritating to skin.



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**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Species : reconstructed human epidermis (RhE)  
Assessment : No skin irritation  
Result : No skin irritation

**Serious eye damage/eye irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

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

**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Result : No eye irritation  
Assessment : No eye irritation

**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

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

**Respiratory or skin sensitisation**

**Product:**

Remarks : This information is not available.

**Components:**

**1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Result : Does not cause skin sensitisation.

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**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Assessment : The product is a skin sensitiser, sub-category 1B.  
Result : The product is a skin sensitiser, sub-category 1B.

**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Assessment : May cause sensitisation by skin contact.  
Result : May cause sensitisation by skin contact.

**Germ cell mutagenicity**

**Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

**Components:**

**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

**Carcinogenicity**

**Product:**

Remarks : No data available

**Reproductive toxicity**

**Product:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

**Components:**

**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Reproductive toxicity - : - Fertility -  
Assessment Animal testing did not show any effects on fertility.

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**Repeated dose toxicity**

**Product:**

Remarks : This information is not available.

**Aspiration toxicity**

**Product:**

This information is not available.

**Further information**

**Product:**

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

**Components:**

**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

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

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**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish :  
Remarks: No data available

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

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**Components:**

**1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1.000 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 41 mg/l  
aquatic invertebrates Exposure time: 48 h

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

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 8.000 mg/l  
Exposure time: 16 h

**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203  
GLP: yes

Remarks: May cause long-term adverse effects in the aquatic environment.

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
aquatic invertebrates Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100  
plants mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

**Persistence and degradability**

**Product:**

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Biodegradability : Remarks: No data available

Physico-chemical  
removability : Remarks: No data available

**Components:**

**1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: 0 %  
Exposure time: 28 d

**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: 11 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Biodegradability : Result: Not rapidly biodegradable

**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).

**Components:**

**1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

Bioaccumulation : Bioconcentration factor (BCF): 3,16

Partition coefficient: n-  
octanol/water : log Pow: 8

**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Partition coefficient: n-  
octanol/water : log Pow: > 4

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**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Bioaccumulation : Bioconcentration factor (BCF): < 100

Partition coefficient: n-octanol/water : log Pow: 9,01

**Mobility in soil**

**Product:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

**Other adverse effects**

**Product:**

Additional ecological information : No information on ecology is available.

**Components:**

**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Additional ecological information : May cause long lasting harmful effects to aquatic life.

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**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  
12 01 12\*, spent waxes and fats

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

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**14. TRANSPORT INFORMATION**

**ADR**

Not regulated as a dangerous good

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

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

Not applicable for product as supplied.

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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).

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**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.

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**

Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation



# SAFETY DATA SHEET

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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 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; 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

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