Material Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Article 31

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name:	Special Grease Type 1063, Special Grease Type 1065
Product description:	Grease
Product code:	1063 (5g), 1065 (80g)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:	Lubricant for sensor threads
Identified use:	Only for professional use

1.3. Details of the supplier of the safety data sheet

Name:	Kistler Instrumente AG
Address:	Eulachstrasse 22
District and Country:	8408 Winterthur, Switzerland
Contact:	+41 52 224 11 11

info@kistler.com, www.kistler.com

1.4. Emergency telephone

National 24h phone number:	145
Swiss Tox Center:	+41 44 251 51 51 (from abroad)

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2. Hazard identification

2.1. Classification of the substance or mixture

Classification according to (EC) Regulation 1272/2008:

Pysical hazards:

Health hazards:

Environmental hazards:

Short-term (acute) aquatic hazard, Category 1 H400 Very toxic to aquatic life Long-term (chronic) aquatic hazard, Category 1 H410 Very toxic to aquatic life with long lasting effects

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Type 1063, 1065

Revision: 12.07.2022 Replaces version from: 01.02.2021



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2.2. Label elements

Labelling according to (EC) regulation no. 1272/2008 [CLP/GHS]

Hazard pictograms:

	¥_2
Signal words:	Warning
Hazard statements:	H410: Very toxic to aquatic life with long lasting effects
Precautionary statements:	P273: Avoid release to the environment P391: Collect spillage

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Toxicological information:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3. Composition/information on ingredients

3.1. Substances

Information not relevant.

3.2. Mixtures

Chemical nature:

Solid lubricant, mineral oil, barium soap complex

Declaration of ingredients according to CLP (EC) No 1272/2008:

Identification	CAS-No. / EC-No. / Index- No. / Registration-No.	Classification	Concentration [% w/w]
Trizinc- bis(orthophosphate)	7779-90-0 231-944-3 030-011-00-6 01-2119485044-40-XXXX	Aquatic Acute 1 H400, Aquatic Chronic 1 H410	30 50

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Identification	CAS-No. / EC-No. / Index- No. / Registration-No.	Classification	Concentration [% w/w]
Zinc oxide	1314-13-2 215-222-5 030-013-00-7 01-2119463881-32-XXXX	Aquatic Acute 1 H400, Aquatic Chronic 1 H410	2,5 10
distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0 265-169-7 649-474-00-6 -	Not classified	10 20
White mineral oil 8042-47-5 (petroleum) 232-455-8 - 01-2119487078-27-XXXX		Not classified	10 20
Distillates (petroleum), hydrotreated light naphthenic; Baseoil - unspecified	64742-53-6 265-156-6 649-466-00-2 -	Not classified	1 10

The full wording of the hazard (H) phrases is given in section 16 of the sheet.

4. First aid measures

4.1. Description of first aid measures

	Inhalation:	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.
	Skin contact:	Remove contaminated clothing. If irritation develops, get medical attention. Wash off with soap and water. Wash clothing before reuse. Thoroughly clean shoes before reuse.
	Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. If eye irritation persists, consult a specialist
	Ingestion:	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.
4.2.	Most important symptoms and	effects, both acute and delayed
	Symptoms:	No information available.
	Risks:	None known
4.3.	Indication of any immediate me	dical attention and special treatment needed
	Notes for the doctor:	Treat symptomatically.

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5. Firefighting measures

Unsuitable extinguishing

5.1. Extinguishing media

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

equipment: High volume water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon oxides, oxides of phosphorus, metal oxides

5.3. Advice for firefighters

General information:	Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Special protective equipment:	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

6.1. 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.

6.2. Environmental precautions

Do not allow contact with soil, surface or ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Any information on personal protection is given in section 8.

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Wash hands and

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face before breaks and immediately after handling the product. 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.

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

7.2. Conditions for safe storage, including any incompatibilities

Store in original container. Keep container closed when not in use. 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.

7.3. Specific end use(s)

Specific instructions for handling, not required.

8. Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits:

Substance name	CAS-No.	Value type (Form of Exposure)	Control parameters	Basis
distillates (petrole- um), solvent-	64742-65-0	TWA (inhalable fraction)	5 mg/m3	CH SUVA (2019-05-21)
dewaxed heavy paraffinic	Further information: Ca Health, Deutsche Forsc	arcinogenic Category 3, hungsgemeinschaft	National Institute for O	ccupational Safety and
White mineral oil (petroleum)	8042-47-5	TWA (inhalable dust)	5 mg/m3	CH SUVA (2016-01-01)
		ational Institute for Occu ft, Harm to the unborn o		
zinc oxide	1314-13-2	TWA (alveolate fume)	3 mg/m3	CH SUVA (2014-01-01)
	Further Information: National Institute for Occupational Safety and Health, Occupational Safety and Health Administration			
		STEL (alveolate fume)	3 mg/m3	CH SUVA (2014-01-01)
	Further Information: National Institute for Occupational Safety and Health, Occupational Safety and Health Administration			
Distillates (petroleum),	64742-53-6	TWA (inhalable fraction)	5 mg/m3	CH SUVA (2019-05-21)
hydrotreated light naphthenic; Baseoil - unspecified	Further information: Carcinogenic Category 3, National Institute for Occupational Safety and Health, Deutsche Forschungsgemeinschaft			

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Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Identification	Effects on	Route of exposure	Possible health hazards	Value
Trizinc- bis(orthophosphate)	Workers	Inhalation	Long-term - systemic effects	5 mg/m3
		Skin contact	Long-term - systemic effects	83 mg/kg
White mineral oil (petroleum)	Workers	Inhalation	Long-term - systemic effects	160 mg/m3
		Skin contact	Long-term - systemic effects	220 mg/kg
Zinc oxide	Workers	Inhalation	Long-term - systemic effects	5 mg/m3
			Long-term - local effects	0,5 mg/m3
		Skin contact	Long-term - systemic effects	83 mg/kg

Predicted no-effect concentration - PNEC:

Identification	Environmental compartment	Value
	Fresh water	0,0206 mg/l
	Marine water	0,0061 mg/l
Trizinc bis(orthophosphate)	Microbiological Activity in Sewage Treatment Systems	0,100 mg/l
	Fresh water sediment	117,8 mg/kg
	Marine water sediment	56,5 mg/kg
	Soil	35,6 mg/kg
Distillates (petroleum), hydrotreated light naphthenic; Baseoil - unspecified	Oral	9,33 mg/kg
	Fresh water	0,0206 mg/l
	Marine water	0,0061 mg/l
Zinc oxide	Microbiological Activity in Sewage Treatment Systems	0,100 mg/l
	Fresh water sediment	117,8 mg/kg
	Marine water sediment	56,5 mg/kg
	Soil	35,6 mg/kg

8.2. Exposure controls

Engineering controls	
None	
Personal protection	
Hand protection:	

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

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	For prolonged or repeated contact use 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
Respiratory protection:	Not required, except in case of aerosol formation Filter type P
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.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	paste
Colour:	white
Odour:	characteristic
Odour threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point:	No data available
Boiling range:	No data available
Flash point:	Not applicable
Evaporation rate:	No data available
Flammability of solids and gases:	Combustible solids
Lower inflammability limit:	No data available
Upper inflammability limit:	No data available
Lower explosive limit:	No data available
Upper explosive limit:	No data available
Vapour pressure:	< 0,001 hPa
Vapour density:	No data available
Relative density:	1,440 (20°C), Reference substance: Water
	The value is calculated
Density:	1.44 g/cm³ (20°C)
Solubility in water:	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, dynamic:	No data available
Viscosity, kinematic:	Not applicable

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9.2. Other information

Explosive properties:	Not explosive
Oxidising properties:	No data available
Self-ignition:	No data available
Evaporation rate:	No data available
Sublimation point:	No data available

10. Stability and reactivity

10.1. Reactivity

No hazards to be specially mentioned.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

No conditions to be specially mentioned.

10.5. Incompatible materials

No materials to be especially mentioned.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

11. Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Product:	
<u>riouuct.</u>	

Acute oral toxicity LD50:	This information is not available.
Acute inhalative toxicity LC50:	This information is not available.
Acute dermal toxicity LD50:	This information is not available.

<u>Components:</u> Trizinc bis(orthophosphate): Acute oral toxicity:

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

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Zinc oxide: Acute oral toxicity:	LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity:	LC50 (Rat): > 5,7 mg/l
	Exposure time: 4 h
	Test atmosphere: dust/mist
	Method: OECD Test Guideline 403
	Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity:	LD50 (Rat): > 2.000 mg/kg
	Method: OECD Test Guideline 402
	GLP: yes
	Assessment: The substance or mixture has no acute dermal toxicity
Distillates (petroleum), solven	t-dewaxed heavy paraffinic:
Acute oral toxicity:	LD50 (Rat): > 5.000 mg/kg
,	Method: OECD Test Guideline 401
Acute dermal toxicity:	LD50 (Rabbit): > 5.000 mg/kg
·	Method: OECD Test Guideline 402
White mineral oil (petroleum)	
Acute oral toxicity:	LD50 (Rat): > 5.000 mg/kg
	Method: OECD Test Guideline 401
	GLP: yes
Acute inhalation toxicity:	LC50 (Rat): > 5 mg/l
-	Exposure time: 4 h
	Test atmosphere: dust/mist
	Method: OECD Test Guideline 403
	GLP: yes
	Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity:	LD50 (Rabbit): > 2.000 mg/kg
-	Method: OECD Test Guideline 402
	GLP: yes
	Assessment: The substance or mixture has no acute dermal toxicity
Distillates (petroleum), hydrot	reated light naphthenic; Baseoil — unspecified:
Acute oral toxicity:	LD50 (Rat): > 5.000 mg/kg
-	Method: OECD Test Guideline 401
Acute dermal toxicity:	LD50 (Rabbit): > 5.000 mg/kg

Skin corrosion/irritation

<u>Product:</u> This information is not available.

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Components: Trizinc bis(orthophosphate): Species: Assessment: Result: Zinc oxide:	Rabbit No skin irritation No skin irritation		
Species:	Rabbit		
Assessment:	No skin irritation		
Method:	OECD Test Guideline 404		
Result:	No skin irritation		
Distillates (petroleum), solvent-dev			
Species:	Rabbit		
Assessment:	No skin irritation		
Method:	OECD Test Guideline 404		
Result:	No skin irritation		
GLP:	yes		
White mineral oil (petroleum):			
Species:	Rabbit		
Assessment:	No skin irritation		
Method:	OECD Test Guideline 404		
Result:	No skin irritation		
GLP:	yes		
	yes		
Distillates (petroleum), hydrotreated light naphthenic; Baseoil — unspecified:			
Distillates (petroleum), hydrotreate	d light naphthenic; Baseoil — unspecified:		
Distillates (petroleum), hydrotreate Species:	d light naphthenic; Baseoil — unspecified: Rabbit		
Species:	Rabbit		
Species: Assessment:	Rabbit No skin irritation		
Species: Assessment:	Rabbit No skin irritation		
Species: Assessment: Result: Serious eye damage/irritation	Rabbit No skin irritation		
Species: Assessment: Result: Serious eye damage/irritation Product:	Rabbit No skin irritation		
Species: Assessment: Result: Serious eye damage/irritation	Rabbit No skin irritation		
Species: Assessment: Result: Serious eye damage/irritation Product:	Rabbit No skin irritation		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components:	Rabbit No skin irritation		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate):	Rabbit No skin irritation No skin irritation		
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Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Assessment:	Rabbit No skin irritation No skin irritation Rabbit No eye irritation		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Assessment: Method:	Rabbit No skin irritation No skin irritation Rabbit No eye irritation OECD Test Guideline 405		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Assessment: Method: Result: GLP:	Rabbit No skin irritation No skin irritation Rabbit No eye irritation OECD Test Guideline 405 No eye irritation		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Assessment: Method: Result: GLP: Zinc oxide:	Rabbit No skin irritation No skin irritation Rabbit No eye irritation OECD Test Guideline 405 No eye irritation yes		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Assessment: Method: Result: GLP: Zinc oxide: Species:	Rabbit No skin irritation No skin irritation Rabbit No eye irritation OECD Test Guideline 405 No eye irritation yes Rabbit		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Assessment: Method: Result: GLP: Zinc oxide: Species: Assessment:	Rabbit No skin irritation No skin irritation Rabbit No eye irritation OECD Test Guideline 405 No eye irritation yes Rabbit No eye irritation		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Assessment: Method: Result: GLP: Zinc oxide: Species: Assessment: Method: Kessesies: Assessment: Method:	Rabbit No skin irritation No skin irritation Rabbit No eye irritation OECD Test Guideline 405 No eye irritation yes Rabbit No eye irritation OECD Test Guideline 405		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Assessment: Method: Result: GLP: Zinc oxide: Species: Assessment: Method: Result: Components: Result: Components: Result: Components: Result: Components: Method: Result: Components: Result: Components: Result: Components: Result: Components: Result: Components: Result: Components: Result: Components: Components: Components: Components: Components: Components: Result: Components: Components: Components: Components: Result: Components: Result: Components: Result: Components: Result: Components: Result: Components: Result: Components: Result: Components: Result: Components: Components: Result: Components: Result: Components: Components: Result: Components: Result: Components: Result: Components: Result: Components: Components: Result: Components: Components: Result: Components: Components: Result: Components: Components: Components: Result: Components: Components: Result: Components: Components: Result: Components: Components: Result: Components: Components: Components: Result: Components: Com	Rabbit No skin irritation No skin irritation Rabbit No eye irritation OECD Test Guideline 405 No eye irritation yes Rabbit No eye irritation OECD Test Guideline 405 No eye irritation OECD Test Guideline 405 No eye irritation		
Species: Assessment: Result: Serious eye damage/irritation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Assessment: Method: Result: GLP: Zinc oxide: Species: Assessment: Method: Kessesies: Assessment: Method:	Rabbit No skin irritation No skin irritation Rabbit No eye irritation OECD Test Guideline 405 No eye irritation yes Rabbit No eye irritation OECD Test Guideline 405		

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Distillates (petroleum), solvent-dewaxed heavy paraffinic: Species: Rabbit Assessment: No eye irritation Method: OECD Test Guideline 405 Result: No eye irritation GLP: yes White mineral oil (petroleum): Species: Rabbit Assessment: No eye irritation Method: OECD Test Guideline 405 Result: No eye irritation GLP: yes Distillates (petroleum), hydrotreated light naphthenic; Baseoil - unspecified: Rabbit Species: Assessment: No eye irritation Method: OECD Test Guideline 405 Result: No eye irritation Respiratory or skin sensitisation Product: This information is not available. Components: Trizinc bis(orthophosphate): Species: Guinea pig Assessment: Does not cause skin sensitisation. Method: **OECD** Test Guideline 406 Result: Does not cause skin sensitisation. GLP: yes Zinc oxide: Test Type: Maximisation Test Species: Guinea pig Assessment: Does not cause skin sensitisation. Method: **OECD** Test Guideline 406 Result: Does not cause skin sensitisation. GLP: yes Distillates (petroleum), solvent-dewaxed heavy paraffinic: Species: Guinea pig Assessment: Does not cause skin sensitisation. Method: **OECD** Test Guideline 406 Does not cause skin sensitisation. Result: GLP: yes

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Test Type:	Maximisation Test
Species:	Guinea pig
Assessment:	Does not cause skin sensitisation.
Method:	OECD Test Guideline 406
Result:	Does not cause skin sensitisation.
GLP:	yes
Distillates (petroleum), hydr	otreated light naphthenic; Baseoil — unspecified:
Species:	Guinea pig
Assessment:	Does not cause skin sensitisation.
Method:	OECD Test Guideline 406
Result:	Does not cause skin sensitisation.
Germ cell mutagenicity	
Product:	
Genotoxicity in vitro:	Remarks: No data available
Genotoxicity in vivo:	Remarks: No data available
Componenta	
<u>Components:</u>	
<u>Components:</u> Trizinc bis(orthophosphate):	
Trizinc bis(orthophosphate):	
Trizinc bis(orthophosphate):	
Trizinc bis(orthophosphate): Germ cell mutagenicity-Asse Zinc oxide:	ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effec ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effec
Trizinc bis(orthophosphate): Germ cell mutagenicity-Asse Zinc oxide: Germ cell mutagenicity-Asse	ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effec
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Trizinc bis(orthophosphate): Germ cell mutagenicity-Asse Zinc oxide: Germ cell mutagenicity-Asse Distillates (petroleum), solve	ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effe ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effe ent-dewaxed heavy paraffinic: Test system: Salmonella typhimurium
Trizinc bis(orthophosphate): Germ cell mutagenicity-Asse Zinc oxide: Germ cell mutagenicity-Asse Distillates (petroleum), solve	ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effe ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effe ent-dewaxed heavy paraffinic: Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation
Trizinc bis(orthophosphate): Germ cell mutagenicity-Asse Zinc oxide: Germ cell mutagenicity-Asse Distillates (petroleum), solve	ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effe ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effe ent-dewaxed heavy paraffinic: Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471
Trizinc bis(orthophosphate): Germ cell mutagenicity-Asse Zinc oxide: Germ cell mutagenicity-Asse Distillates (petroleum), solve Genotoxicity in vitro:	ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effer ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effer ent-dewaxed heavy paraffinic: Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
Trizinc bis(orthophosphate): Germ cell mutagenicity-Asse Zinc oxide: Germ cell mutagenicity-Asse Distillates (petroleum), solve Genotoxicity in vitro:	ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effer ssment: Tests on bacterial or mammalian cell cultures did not show mutagenic effer ent-dewaxed heavy paraffinic: Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Species: Mouse

White mineral oil (petroleum):

Genotoxicity in vitro: Test Type: Ames test Method: Mutagenicity

Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Result: negative GLP: yes

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

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Carcinogenicity

<u>Product:</u> No data available

Components:

Trizinc bis(orthophosphate): Carcinogenicity - Assessment:

Not classifiable as a human carcinogen.

Zinc oxide:

Carcinogenicity - Assessment: Not classifiable as a human carcinogen.

Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Species: Application Route: Method: Result: Mouse Dermal OECD Test Guideline 451 negative

White mineral oil (petroleum):

Carcinogenicity - Assessment:

No evidence of carcinogenicity in animal studies.

Reproductive toxicity

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

<u>Components:</u> Trizinc bis(orthophosphate):

Reproductive toxicity Assocrant: Fo

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

Zinc oxide:

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

Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Effects on foetal development:	Species: Rat
	Application Route: Dermal
	General Toxicity Maternal: NOAEL: 30 mg/kg body weight
	Developmental Toxicity: NOAEL: 30 mg/kg body weight
	Method: OECD Test Guideline 414

White mineral oil (petroleum):

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

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STOT - Single exposure	
<u>Components:</u> Zinc oxide: Assessment:	The substance or mixture is not classified as specific target organ toxicant, single exposure.
White mineral oil (petroleum):	
Assessment:	The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - Repeated exposure	
<u>Components:</u> Zinc oxide:	
Assessment:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
White mineral oil (petroleum):	
Assessment:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Repeated dose toxicity	

<u>Product:</u> This information is not available.

Components:	
White mineral oil (petroleum):	
NOAEL:	1.8
Exposure time:	90

800 mg/kg) d

Aspiration hazard

<u>Product:</u> This information is not available.

<u>Components:</u> Trizinc bis(orthophosphate): No aspiration toxicity classification

Zinc oxide: No aspiration toxicity classification

Distillates (petroleum), solvent-dewaxed heavy paraffinic: No aspiration toxicity classification

White mineral oil (petroleum):

No aspiration toxicity classification

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$\label{eq:constraint} \text{Distillates (petroleum), hydrotreated light naphthenic; Baseoil - unspecified:}$

No aspiration toxicity classification

Further information

Product:

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

12. Ecological information

12.1. Toxicity

<u>Product:</u> Toxicity to fish: Toxicity to daphnia and other aquatic invertebrates: Toxicity to algae/aquatic plants: Toxicity to microorganisms:	May cause long-term adverse effects in the aquatic environment. No data available No data available No data available
<u>Components:</u> Trizinc bis(orthophosphate): Toxicity to fish:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.14 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates:	EC50 (Daphnia magna (Water flea)): > 1.08 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)): >0.136 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity):	1
M-Factor (Chronic aquatic toxicity)	: 1
Zinc oxide: Toxicity to fish:	LC50 (Danio rerio (zebra fish)): 1.55 mg/l Exposure time: 96 h Test Type: static test
Toxicity to daphnia and other aquatic invertebrates:	EC50 (Daphnia magna (Water flea)): 1 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202

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Toxicity to algae/aquatic plants:	EC50 (Pseudokirchneriella subcapitata (green algae)): 0,136 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes
M-Factor (Acute aquatic toxicity):	1
Toxicity to microorganisms:	EC50 (activated sludge): > 1.000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 GLP: yes
Toxicity to daphnia and other aqua invertebrates (Chronic toxicity):	tic 0,04 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity)	: 1
Distillates (petroleum), solvent-de Toxicity to fish:	waxed heavy paraffinic: LC50 (Pimephales promelas (fathead minnow)): > 100 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)): > 10.000 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants:	NOEC (Pseudokirchneriella subcapitata (green algae)): > 100mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
Toxicity to daphnia and other aqua invertebrates (Chronic toxicity):	tic NOEC: 10 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)
White mineral oil (petroleum): Toxicity to fish:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203

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	Toxicity to daphnia and other aquatic invertebrates:	EC50 (Daphnia (water flea)): > 100 mg/l Exposure time: 48 h Test Type: Immobilization Method: OECD Test Guideline 202
	Toxicity to daphnia and other aqua invertebrates (Chronic toxicity):	tic NOEC: >= 1.000 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)
	Distillates (petroleum), hydrotreate Toxicity to daphnia and other aquatic invertebrates:	ed light naphthenic; Baseoil — unspecified: EC50 (Daphnia magna (Water flea)): > 10.000 mg/l Exposure time: 48 h Test Type: Immobilization Method: OECD Test Guideline 202
12.2.	Persistence and degradability	
	<u>Product:</u> Biodegradability: Physico-chemical removability:	No data available No data available
	<u>Components:</u> Trizinc bis(orthophosphate): Biodegradability:	The methods for determining biodegradability are not applicable to inorganic substances.
	Zinc oxide: Biodegradability:	The methods for determining biodegradability are not applicable to inorganic substances.
	Distillates (petroleum), solvent-der Biodegradability:	waxed heavy paraffinic: Test Type: aerobic Inoculum: activated sludge Result: Not rapidly biodegradable Biodegradation: 31 % Exposure time: 28 d Method: OECD Test Guideline 301B GLP: yes
	White mineral oil (petroleum): Biodegradability:	Test Type: Primary biodegradation Inoculum: activated sludge Result: Not rapidly biodegradable Biodegradation: 31 % Exposure time: 28 d Method: OECD Test Guideline 301B

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12.3. Bioaccumulative potential

ng
quatic

Product:	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.

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The following Waste Codes are only suggestions:

Waste Code:

used product, unused product 12 01 12*, spent waxes and fats

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

14. Transport information

14.1. UN number

ADN:	UN 3077
ADR:	UN 3077
RID:	UN 3077
IMDG:	UN 3077
IATA:	UN 3077

14.2. UN proper shipping name

ADN:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Phosphate, zinc oxide)
ADR:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Phosphate, zinc oxide)
RID:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Phosphate, zinc oxide)
IMDG:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Phosphate, zinc oxide)
IATA:	Environmentally hazardous substance, solid, n.o.s. (Zinc Phosphate, zinc oxide)

14.3. Transport hazard class(es)

ADN:	9
ADR:	9
RID:	9
IMDG:	9
IATA:	9

14.4. Packing group

ADN	
Packing group:	111
Classification Code:	M7
Hazard Identification Number:	90
Labels:	9

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	ADR Packing group: Classification Code: Hazard Identification Number: Labels:	III M7 90 9	
	RID Packing group: Classification Code: Hazard Identification Number: Labels:	III M7 90 9	
	IMDG Packing group: Labels: EmS Code:	III 9 F-A, S-F	
	IATA (Cargo) Packing instruction (cargo aircraft): Packing instruction (LQ): Packing group: Labels:	956 Y956 III Miscellaneous	
	IATA (Passenger) Packing instruction (passenger aircraft): Packing instruction (LQ): Packing group: Labels:	956 Y956 III Miscellaneous	
Environmental hazards			
	ADN Environmentally hazardous:	yes	
	ADR Environmentally hazardous:	yes	
	RID Environmentally hazardous:	yes	
	IMDG Marine pollutant:	yes	

14.5.

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yes

yes

IATA (Passenger)

IATA (Cargo)

Environmentally hazardous:

Environmentally hazardous:



14.6. 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.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII): Not applicable REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). (EU SVHC): This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57). REACH - List of substances subject to authorisation (Annex XIV) (EU. REACH - Annex XIV): Not applicable Regulation (EC) No 1005/2009 on substances that deplete the ozone layer (EC 1005/2009): Not applicable Regulation (EU) 2019/1021 on persistent organic pollutants (recast) (EU POP): Not applicable PIC Ordinance, ChemPICO (814.82): Not applicable Regulation (EU) 2019/1148 on the marketing and use of explosives precursors: Not applicable Ordinance on Protection against Major Accidents Threshold quantity according to Major Accidents Ordinance (MAO 814.012): 2.000 kg Law on the incentive tax for volatile organic compounds (VOCV) Volatile organic compounds: Volatile organic compounds (VOC) content: < 0.01% no VOC duties Other regulations:

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2): Young people undergoing basic vocational training may only work with this product if the relevant training ordinance makes provision for them to do so with a view to enabling them to achieve their training objectives and if the preconditions for the training plan have been met and the applicable age restrictions have been complied with. Young people who are not completing any basic vocational training are not permitted to work with this product. Employees of either sex who are under 18 years old are classed as young people.

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15.2. Chemical Safety Assessment

This information is not available.

16. Other information

Text of hazard (H) indications		
H400	Very toxic to aquatic life	
H410	Very toxic to aquatic life with long lasting effects	
Legend		
ADR	European Agreement concerning the carriage of Dangerous goods by Road	
CAS-no.	Chemical Abstracts Service	
CLP	EC Regulation 1272/2008	
DNEL	Derived No Effect Level	
EC50	Effective concentration (required to induce a 50% effect)	
EC-no.	Identifier in ESIS (European archive of existing substances)	
EMS	Emergency Schedule	
GHS	Globally Harmonized System of classification and labeling of chemicals	
GLP	Good Laboratory Practice	
IATA	International Air Transport Association Dangerous Goods Regulation	
IMDG	International Maritime Code for dangerous goods	
IMO	International Maritime Organization	
Index-no.	Identifier in Annex VI of CLP	
LC50	Lethal Concentration 50%	
LD50	Lethal dose 50%	
OEL	Occupational Exposure Level	
PBT	Persistent, bioaccumulative, and toxic as REACH Regulation	
PNEC	Predicted no effect concentration	
REACH	EC Regulation 1907/2006	
RID	Regulation concerning the international transport of dangerous goods by train	
TLV	Threshold Limit Value	
TWA	Time-weighted average exposure limit	
VOC	Volatile organic Compounds	
vPvB	Very Persistent and very Bioaccumulative as for REACH Regulation	

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

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