

Material Safety Data Sheet

Type 1063

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

Special Grease Type 1063

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

1.1. Product identifier

Product number	1063
Product code	1063 (5 g) or 1065 (80 g)
Product description	Grease

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

Not applicable.

1.3. Details of the supplier of the safety data sheet

Kistler Instrumente AG, Eulachstrasse 22
8408 Winterthur, Switzerland
Tel: +41 52 224 11 11, Fax: +41 52 224 14 14
info@kistler.com, www.kistler.com

E-mail address of person
responsible for this SDS info@kistler.com

1.4. Emergency telephone number National advisory body/Poison Centre

Phone number of supplier	+41 44 251 51 51	Toxicological Information Centre, Zürich (24/7)
Emergency telephone number (with hours of operation)	+41 79 776 89 35	ASTAG AG (8hrs, GMT-1)

2. Hazards identification

2.1. Classification of the substance or mixture

Product definition Mixture

Classification according to Regulation
(EC) No. 1272/2008 [CLP/GHS] Aquatic Acute 1, H400
Aquatic Chronic 1, H410

Ingredients of unknown toxicity Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 27,5 %.

Ingredients of unknown ecotoxicity Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 29,7 %.

1063_000-578e-06.15

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification N; R50/53
Environmental hazards Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2. Hazards identification

Hazard pictograms



Signal word Warning
Hazard statements Very toxic to aquatic life with long lasting effects
Precautionary statements
Prevention Avoid release to the environment.
Response Collect spillage.
Storage Not applicable.
Disposal Not applicable.
Hazardous ingredients
Supplemental label elements Not applicable.
Special packaging retirements
Containers to be fitted with child-resistant fastenings Not applicable.
Tactile warning of danger Not applicable.

2.3 Other hazards

Other hazards which do not result in classification Not available.
Additional warning phrases Not available.

3. Composition/information on ingredients

Substance/mixture Mixture.
Description mineral oil barium complex soap solid lubricant.

Product/ ingredient name	%	Identifiers	67/548/EEC [CLP]	Regulation (EC) No.1272/2008	Type
trizinc bis (orthophosphate)	35 ... 50	EG: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
zinc oxide	2.5 ... 25	EG: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
calcium bis (dinonylnaphthalene-sulphonate)	1 ... 5	EG: 260-991-2 CAS: 57855-77-3	Xi; R36/38	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]

See Section 16 for the full text of the H-phrases and R-phrases declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

4. First aid measures

4.1. Description of first aid measures

Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

1063_000-578e-06.15

4.2. Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	No specific data.
Ingestion	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.

5.2. Special hazards arising from the substance or mixture

Hazards from the substance or mixture	In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
---------------------------------------	--

Hazardous combustion products	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides phosphorus oxides metal oxide/oxides
-------------------------------	--

5.3 Advice for firefighters

Special precautions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

1063_000-578e-06.15

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	Specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2. Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3. Methods and materials for containment and cleaning up

Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

7. Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1. Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3. Specific end use(s) Recommendations

Not available.

7.4. Industrial sector specific solutions

Not available.

8. Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1. Control parameters

Occupational exposure limits	No exposure limit value known.
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
Derived effect levels	No DELs available.
Predicted effect concentrations	No DELs available.

8.2. Exposure controls

Appropriate engineering controls	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
----------------------------------	---

Individual protection measures

Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Skin protection	
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

1063_000-578e-06.15

Environmental exposure controls Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Paste.
Colour	White.
Odour	Characteristic.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not applicable.
Flammability (solid, gas)	Not available.
Burning time	Not applicable.
Burning rate	Not applicable.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Density	1.44 g/cm ³ [20°C]
Bulk Density	Not available.
Solubility(ies)	Insoluble in the following materials cold water and hot water.
Partition coefficient n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2 Other information No additional information.

10. Stability and reactivity

10.1. Reactivity	No specific test data related to reactivity available for this product or its ingredients.
10.2. Chemical stability	The product is stable.
10.3. Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4. Conditions to avoid	No specific data.
10.5. Incompatible materials	No specific data.
10.6. Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

1063_000-578e-06.15

11. Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
trizinc bis (orthophosphate)	LD50 Oral	Rat	>2000 mg/kg	–
zinc oxide	LD50 Dermal	Rat	>2000 mg/kg	–
calcium bis (dinonylnaphthale- nesulphonate)	LD50 Dermal	Rabbit	>20 g/kg	–
	LD50 Oral	Rat	>5000 mg/kg	–

Conclusion/Summary Not available.

Acute toxicity estimates Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Calcium bis (dinonylnaphthale- nesulphonate)	Skin - Moderate irritant	Rabbit	–	–	–

Conclusion/Summary Not available.

Sensitiser

Conclusion/Summary Not available.

Mutagenicity

Conclusion/Summary Not available.

Carcinogenicity

Conclusion/Summary Not available.

Reproductive toxicity

Conclusion/Summary Not available.

Teratogenicity

Conclusion/Summary Not available.

Specific target organ toxicity
(single exposure) Not available.

Specific target organ toxicity
(repeated exposure) Not available.

Aspiration hazard Not available.

Information on the likely
routes of exposure Not available.

Potential acute health effects

Inhalation No known significant effects or critical hazards

Ingestion No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Eye contact No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation No specific data.

Ingestion No specific data.

Skin contact No specific data.

Eye contact No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Not available.
Potential delayed effects Not available.

Long term exposure

Potential immediate effects Not available.
Potential delayed effects Not available.
Potential chronic health effects Not available.

Conclusion/Summary Not available.
General No known significant effects or critical hazards.
Carcinogenicity No known significant effects or critical hazards.
Mutagenicity No known significant effects or critical hazards.
Teratogenicity No known significant effects or critical hazards.
Developmental effects No known significant effects or critical hazards.
Fertility effects No known significant effects or critical hazards.
Other information Not available.

12. Ecological information

12.1. Toxicity

Product/ingredient name	Result	Species	Exposure
trizinc bis (orthophosphate)	Acute LC50 90 ug/L Fresh water	Fish - Oncorhynchus mykiss - 180 days - 1.5 g	96 hours

Conclusion/Summary Not available.

12.2. Persistence and degradability

Conclusion/Summary Not available.

12.3. Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Distillates (petroleum), solvent-refined heavy paraffinic	3.9 to 6		high

12.4. Mobility in soil

Soil/water partition coefficient (K_{oc}) Not available.
Mobility Not available.

12.5. Results of PBT and vPvB assessment

Not applicable

12.6. Other adverse effects

No known significant effects or critical hazards.

1063_000-578e-06.15

13. Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1. Waste treatment methods

Methods of disposal

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste

The classification of the product may meet the criteria for a hazardous waste.

Packaging



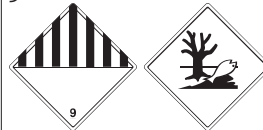
Methods of disposal

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	ADR/RID	IMDG	IATA
14.1 UN Number	3077	3077	3077
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Phosphate, Zinc oxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Phosphate, Zinc oxide). Marine pollutant	Environmentally hazardous substance, solid, n.o.s. (Zinc Phosphate, Zinc oxide)
14.3 Transport hazard class(es)	9 		9 
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes	Yes	Yes
14.6 Special precautions for user	Not available.	Not available.	Not available.
Additional information	Hazard identification number	Emergency schedules (EmS)	–
	90	F-A, S-F	
	Limited quantity		
	LQ27		
	Tunnel code		
	E		

1063_000-578e-06.15

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulation (EC) No. 1907/2006 (REACH)
Annex XIV - List of substances subject to authorization

Substances of very high concern None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not applicable.

Other EU regulations

Europe inventory	Not determined.
Black List Chemicals	Not listed
Priority List Chemicals	Listed
Integrated pollution prevention and control list (IPPC) - Air	Not listed
Integrated pollution prevention and control list (IPPC) - Water	Not listed

International regulations

Chemical Weapons Convention List Schedule I Chemicals	Not listed
Chemical Weapons Convention List Schedule II Chemicals	Not listed
Chemical Weapons Convention List Schedule III Chemicals	Not listed

15.2 Chemical Safety Assessment This product contains substances for which Chemical Safety Assessments are still required.

1063_000-578e-06.15

16. Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
----------------------------	---

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method
Full text of abbreviated H statements	H315 Causes skin irritation. H319 Causes serious eye irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.
Full text of classifications [CLP/GHS]	Aquatic Acute 1, H400 AQUATIC TOXICITY (ACUTE) - Category 1 Aquatic Chronic 1, H410 AQUATIC TOXICITY (CHRONIC) - Category 1 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2
Volltext der abgekürzten R-Sätze	R36/38 – Reizt die Augen und die Haut. R50/53 – Sehr giftig für Wasserorganismen, kann in Gewässern längerfristig schädliche Wirkungen haben.
Full text of abbreviated [DSD/DPD]	Xi - Irritant. N - Dangerous for the environment.
Version	1.01
Date of printing	2014-12-15.
Date of issue	2012-04-23
Date of previous issue	2011-06-10.

Notice to reader

All information and instructions in this safety datasheets were compiled to the best of our knowledge and are based on the information available to us. The data provided are intended to describe the product in relation to the required safety measures; they are neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and do not justify any contractual legal relationships.

1063_000-578e-06.15