SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: MULTI Plus EP-2M

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

General use: Lubricating grease
Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company name: MATO GmbH & Co.KG
Street/POB-No.: Benzstr. 16-24
Postal Code, city: 63165 Mühlheim/Main
WWW: www.mato.de
E-mail: mato.germany@mato.de
Telephone: +49 (0)6108-906-0
Telefax: +49 (0)6108-906-120

Department responsible for information:
Herr Gerold Isokeit,
Telephone: +49 (0)6108-906-135, e-mail isokeit@mato.de

1.4 Emergency telephone number

GIZ-Nord, Göttingen, Germany,
Telephone: +49 551-19240

Transport:
CONSULTANK Lutz Harder GmbH (Contract QUALI003)
Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

This mixture is classified as not hazardous.

2.2 Label elements

Labelling (CLP)

Hazard statements: not applicable

Precautionary statements: not applicable

Special labelling

EUH208 Contains Naphthenic acids, zinc salts, basic. May produce an allergic reaction.

EUH210 Safety data sheet available on request.

2.3 Other hazards

Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: Lubricating grease.
Mixture of the substance mentioned below with non-hazardous additions:

Hazardous ingredients:

Ingredient	Designation	Content	Classification
REACH 01-2119493635-27-xxxx EC No. 224-235-5 CAS 4259-15-8	Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	< 1.3 %	Eye Dam. 1; H318. Aquatic Chronic 2; H411.
EC No. 282-762-6 CAS 84418-50-8	Naphthenic acids, zinc salts, basic	< 1 %	Eye Irrit. 2; H319. Skin Sens. 1; H317. Aquatic Chronic 3; H412.

Full text of H- and EUH-statements: see section 16.

Additional information: Lithium - Lubricating grease: Mineral oil and additives.
Information about Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
Specific concentration limit (SCL): 50%<C<100% (Eye damage/irritation - category 1)
Information about mineral oil: < 3% dimethylsulfoxide (DMSO) extract (IP 346).

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: If medical advice is needed, have product container or label at hand.
Take off contaminated clothing and wash it before reuse.

In case of inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical treatment in case of troubles.

Following skin contact: Thoroughly wash skin with soap and water. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an opthalmologist.

After swallowing: Do not induce vomiting. Rinse mouth immediately and drink plenty of water.
Never give anything by mouth to an unconscious person. In the event of discomfort seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

Inhaling can lead to irritations of the respiratory tract and mucous membrane. Frequent or prolonged skin contact may cause irritation and inflammation. Upon direct contact with eyes may cause burning, tearing, redness.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Foam, extinguishing powder and carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

5.2 Special hazards arising from the substance or mixture

Combustible. May form dangerous gases and vapours in case of fire.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Hazchem-Code: -

Heating causes rise in pressure with risk of bursting. Cool endangered containers with water spray and, if possible, remove from danger zone. Use water spray jet to knock down vapours. Do not breathe fumes. Do not allow fire water to penetrate into surface or ground water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains. If necessary notify appropriate authorities.

6.3 Methods and material for containment and cleaning up

Plug leak if safely possible. Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Final cleaning. Dispose of waste according to applicable legislation.

Additional information: Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapours/spray. Vapours/aerosols must be exhausted directly at the point of origin. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product. Have eye wash bottle or eye rinse ready at work place.

Precautions against fire and explosion:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container dry, tightly closed and store at cool and aired place.
storage temperature: < 45 °C.

Hints on joint storage: Do not store together with strong oxidizing agents.
Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

Type	Limit value
Great Britain: MEL/OES-STEL	10 mg/m³ (Oil mist)
Great Britain: MEL/OES-TWA	5 mg/m³ (Oil mist)
Ireland: 8 hours	5 mg/m³ (Oil mist mineral, inhalable fraction)

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment

Occupational exposure controls

Respiratory protection: If vapours form, use respiratory protection.
Use filter type A (= against vapours of organic substances) according to EN 14387.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection: Protective gloves according to EN 374.
Glove material: Nitrile rubber - Layer thickness: >= 0.38 mm
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:

Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product. Have eye wash bottle or eye rinse ready at work place.

Environmental exposure controls

Refer to "6.2 Environmental precautions".

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Form: semi-solid, smooth Colour: yellow-brown
Odour:	No data available
Odour threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	> 150 °C (mineral oil)
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 25 °C: <= 1 g/mL
Solubility:	No data available
Partition coefficient: n-octanol/water:	2.86 log P(o/w) (Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Explosive properties:	Product is not explosive. In case of heating: Vapours can form explosive mixtures with air.
Oxidizing characteristics:	No data available

9.2 Other information

Additional information:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Refer to subsection "Possilbility of hazardous reactions".

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions with proper and specified storage and handling.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharges.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

No decomposition when used properly.

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.
ATEmix calculated: 5,152 mg/kg

Acute toxicity (dermal): Based on available data, the classification criteria are not met.
ATEmix calculated: 2,883 mg/kg

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

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

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

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

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

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

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

Other information: Information about Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
LD50 Rat, oral: 3,100 mg/kg
LD50 Rabbit, dermal: > 5,000 mg/kg

Information about Naphthenic acids, zinc salts, basic:
LD50 Rat, oral: > 2,000 mg/kg

Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal.
Used oil: Evidence for possible carcinogenic effects in experimental animals existent.

Symptoms

In case of inhalation:
Overheating released mist or vapours can irritate the respiratory tracts.
Other symptoms: Cough, respiratory complaints, dizziness, nausea, vomiting, headache
In case of ingestion:
Following symptoms can occur depending on degree of seriousness: Nausea, gastrointestinal complaints, vomiting.
After contact with skin:
Frequent or prolonged skin contact may cause irritation and inflammation.
Prolonged/repetitive skin contact may cause skin defattening or dermatitis.
Other symptoms: skin rash, irritation.
After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Information about Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
Fish toxicity:
LC50 Pimephales promelas (fathead minnow), semistatic: 10.0 - 35.0 mg/L/96h
LC50 Pimephales promelas (fathead minnow), static: 1.0 - 5.0 mg/L/96h
Daphnia toxicity:
EC50 Daphnia magna (Big water flea): 1.0 - 1.5 mg/L/48h
Algae toxicity:
EC50 Pseudokirchneriella subcapitata (green algae): 1.0 - 5.0 mg/L/96h

12.2 Persistence and degradability

Further details: Product is not readily biodegradable.

12.3 Bioaccumulative potential

Significant bioaccumulation potential is not to be expected.

Partition coefficient: n-octanol/water:
2.86 log P(o/w) (Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate))
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

12.4 Mobility in soil

Floats on the water.

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 13 08 99* = Oil wastes not otherwise specified
* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:

not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:

not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

not applicable

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

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

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -

No data available

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H317 = May cause an allergic skin reaction.
H318 = Causes serious eye damage.
H319 = Causes serious eye irritation.
H411 = Toxic to aquatic life with long lasting effects.
H412 = Harmful to aquatic life with long lasting effects.
EUH208 = Contains Naphthenic acids, zinc salts, basic. May produce an allergic reaction.
EUH210 = Safety data sheet available on request.

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
AS/NZS: Australian Standards/New Zealand Standards
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC50: Effective Concentration 50%
EC: European Community
EN: European Standard
EU: European Union
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LC50: Median lethal concentration
LD50: Lethal dose 50%
log P(o/w): Partition coefficient: octanol/water
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
SCL: Specific concentration limit
vPvB: Very persistent and very bioaccumulative

Reason of change: Changes in section 2: Classification, labelling
Changes in section 3: Composition / Information on ingredients
General revision

Date of first version: 30/9/2015

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.