

Revision Date: 21/05/2013

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name TKII Modified

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

Recommended Use Lubricant, Sealant, at high temperatures
Uses advised against No information available

1.3 Details of the supplier of the safety data sheet

TOPCO OILSITE PRODUCTS LTD.
 Bay 7, 3401 - 19 Street N.E.
 Calgary, Alberta
 CANADA T2E 6S8
 Tel.: (403) 219-0255
 Fax: (403) 291-3042
 MSDS@TOPCOOILSITE.COM

1.4 Emergency telephone number

National Poisons Information Service (London Centre)
 +44 20 7771 5307

CANUTEC (Canada), 001-613-996-6666, Cell: *666, TTY/TDD: 1-888-675-6863

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (1272/2008/EC)

Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Classification according to EU Directives 67/548/EEC or 1999/45/EC

N; R50-53

2.2 Label elements



Signal Word
 Warning

Hazard Statements

H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements

P273 - Avoid release to the environment

P391 - Collect spillage

P501 - Dispose of contents/containers in accordance with local regulations

2.3 Other hazards

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures**

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548/EEC)	Classification (1272/2008/EC)	REACH Registration Number
Zinc	231-175-3	7440-66-6	> 25	N; R50/53	Aquatic acute 1 H400 Aquatic Chronic 1 H410	no data available
Graphite	231-955-3	7782-42-5	> 15	-	-	no data available
Copper oxide	215-269-1	1317-38-0	10 - 15	N; R50	Aquatic acute 1 H400	no data available

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

General advice	No hazards which require special first aid measures.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if symptoms occur.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and afterwards drink plenty of water.
Inhalation	Move to fresh air. Get medical attention immediately if symptoms occur.
Protection of first-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

4.2 Most important symptoms and effects, both acute and delayed

Main symptoms No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

SECTION 5: FIRST AID MEASURES**5.1 Extinguishing media**

Suitable extinguishing media	The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Extinguishing media which must not be used for safety reasons	None known.

5.2 Special hazards arising from the substance or mixture

Special hazard Hazardous decomposition products formed under fire conditions: Carbon oxides. Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

SECTION 6: FIRE FIGHTING MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Try to prevent the material from entering drains or water courses. Avoid subsoil penetration.

6.3 Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Wear personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition.

7.3 Specific end use(s)

Exposure Scenario Not available.

Other information Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Chemical Name	European Union	The United Kingdom	France	Spain	Germany
Zinc					STEL: 4 mg/m ³ (inh) TWA: 2 mg/m ³ (inh)
Graphite		STEL: 30 mg/m ³ (inh) STEL: 12 mg/m ³ (resp) TWA: 10 mg/m ³ (inh) TWA: 4 mg/m ³ (resp)	VME: 2 mg/m ³ (alv)	VLA-ED: 2 mg/m ³ (inh)	MAK: 1.5 mg/m ³ (alv) MAK: 4 mg/m ³ (inh)
Copper oxide					TWA: 0.1 mg/m ³ Ceiling / Peak: 0.2 mg/m ³

Chemical Name	Italy	Portugal	Netherlands	Denmark	Poland
Graphite		TWA: 2 mg/m ³ (resp)		STEL: 5 mg/m ³ (resp) TWA: 2.5 mg/m ³ (resp)	NDS: 4.0 mg/m ³ (inh) NDS: 1.0 mg/m ³ (resp) NDS: 6.0 mg/m ³ (synthetic, inh)
Copper oxide					TWA: 0.2 mg/m ³

Chemical Name	Belgium	Sweden	Hungary	Finland	Czech Republic
Graphite	TWA: 2 mg/m ³ (resp)	TWA: 5 mg/m ³ (inh)		TWA: 2 mg/m ³	TWA: 2.0 mg/m ³ TWA: 10 mg/m ³
Copper oxide			STEL: 4 mg/m ³	TWA: 1 mg/m ³	

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2 Exposure controls

Appropriate engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye protection Tightly fitting safety goggles.
Hand protection Impervious gloves: Natural Rubber, Latex gloves. Break through time: 4 - 8 hours.
Skin and body protection Long sleeved clothing.
Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls The product should not be allowed to enter drains, water courses or the soil.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state @20°C	solid
Appearance	paste
Colour	Copper
Odour	odourless
pH	No information available
Melting/freezing point	No information available
Boiling point/boiling range	No information available
Flash point	> 385 °C (ASTM D92)
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limits in Air	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Solubility	
Water solubility	Insoluble in water
Partition coefficient (n-octanol/water)	No information available
Autoignition Temperature	Not applicable
Decomposition temperature	No information available
Viscosity, dynamic	No information available
Explosive properties	Not explosive
Oxidising Properties	No information available

9.2 Other information

Density	1.92 g/cm ³
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SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

Inert, not reactive.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

None in particular.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: Carbon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Ingestion No known effect.
Skin contact No known effect.
Inhalation No known effect.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Graphite	10000 mg/kg (Rat)		
Copper oxide	> 470 mg/kg (Rat)		

Skin corrosion/irritation No known effect.
Serious eye damage/irritation No known effect.
Respiratory or skin sensitisation No known effect.
Germ cell mutagenicity Not known to cause heritable genetic damage.
Carcinogenicity Contains no ingredient listed as a carcinogen.
Reproductive toxicity Not known to cause birth defects or have a deleterious effect on a developing fetus. Not known to adversely affect reproductive functions and organs.
STOT-single exposure No known effect.
STOT-repeated exposure No known effect.
Aspiration hazard No known effect.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates.
Zinc	EC50: 0.11 - 0.271 mg/L Pseudokirchneriella subcapitata 96 h static EC50: 0.09 - 0.125 mg/L Pseudokirchneriella subcapitata 72 h static	LC50: 2.16-3.05 mg/L Pimephales promelas 96 h flow-through LC50: 0.211-0.269 mg/L Pimephales promelas 96 h semi-static LC50: 2.66 mg/L Pimephales promelas 96 h static LC50: 30 mg/L Cyprinus carpio 96 h LC50: 0.45 mg/L Cyprinus carpio 96 h semi-static LC50: 7.8 mg/L Cyprinus carpio 96 h static LC50: 3.5 mg/L Lepomis macrochirus 96 h static LC50: 0.24 mg/L Oncorhynchus mykiss 96 h flow-through LC50: 0.59 mg/L Oncorhynchus mykiss 96 h semi-static LC50: 0.41 mg/L Oncorhynchus mykiss 96 h static		EC50: 0.139 - 0.908 mg/L Daphnia magna 48 h Static
Copper oxide		LC50: 25.4 mg/l Oncorhynchus mykiss 96h LC50: 310-850 µg/l Morone saxatilis 48h		

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Waste from residues / unused products**

Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

According to: ADR, RID, ADN, IMDG, ICAO.

14.1 UN number

3077

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc powder, Copper oxides)

14.3 Transport hazard class(es)

Hazard Class 9

14.4 Packing group

Packing group III

14.5 Environmental hazards

Very toxic to aquatic life with long lasting effects.

14.6 Special precautions for user

Not applicable.

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

Not applicable.

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Restrictions on use**

None.

Other regulations

None.

15.2 Chemical safety assessment

Not required.

SECTION 16: OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of H-Statements referred to under sections 2 and 3

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

Revision Note

Emergency telephone.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text