SAFETY DATA SHEET

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

Product identifier

Trade name or designation of the mixture	INHIBITED INSULATING OIL
Registration number	-
Synonyms	None.
SDS number	2511/01
Date of first issue	14-February-2012
Version number	01
Revision date	-
Supersedes date	-

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

Identified uses	Electrical insulating oil; Insulating oil within transformers; Insulating oil with anti oxidant additive.
Uses advised against	None known.

Details of the supplier of the safety data sheet

Supplier

Company name	Electrical Oil Services Ltd.
Address	PO Box 79, Bridges Road, Stanlow, Ellesmere Port, Cheshire, CH66 2YZ
Telephone	0845 602 1003
e-mail	sales@eosl.co.uk
Contact person	Tony O'Regan
Emergency telephone number	0845 602 1003

Section 2: Hazards identification

Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification R52/53

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards		
Aspiration hazard	Category 1	May be fatal if swallowed and enters airways.
Environmental hazards		
Hazardous to the aquatic environment - long-term hazard	Category 3	Harmful to aquatic life with long lasting effects.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Not classified for health hazards.
Environmental hazards	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Specific hazards	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Main symptoms	Direct contact with eyes may cause temporary irritation. Exposed may experience eye tearing, redness, and discomfort.

Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Signal word	Danger
Hazard statements	May be fatal if swallowed and enters airways. Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention	Avoid release to the environment.
Response	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Supplemental label information	None.
Other hazards	Not assigned.

Section 3: Composition/information on ingredients

Mixture

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Distillate (Petroleum), severely Hydrotreated Light Naphthenic	< 100	64742-53-6 265-156-6	01-2119480375-34-xxxx	649-466-00-2	#
Classification: **DSD:** -					
CLP: Asp. Tox. 1;H304					
Butylhydroxytoluene (BHT)	0 - 0,4	128-37-0 204-881-4	-	-	#
Classification: **DSD:** N;R50/53					
CLP: Aquatic Chronic 1;H410					

CLP: Regulation No. 1272/2008.
DSD: Directive 67/548/EEC.
#: This substance has workplace exposure limit(s).

Composition comments	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The full text for all R- and H-phrases is displayed in section 16.

Section 4: First aid measures

General information	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Description of first aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Flush eyes immediately with large amounts of water. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary oedema and pneumonitis.
Most important symptoms and effects, both acute and delayed	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Direct contact with eyes may cause temporary irritation. Exposed may experience eye tearing, redness, and discomfort.
Indication of any immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. Symptoms may be delayed.

Section 5: Firefighting measures

General fire hazards	This product is not flammable.

Extinguishing media

Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Powder.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Special hazards arising from the substance or mixture	Closed containers can burst violently when heated, due to excess pressure build-up.

Advice for firefighters

Special protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Special firefighting procedures	Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Water runoff can cause environmental damage. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Keep people away from and upwind of spill/leak. Ensure adequate ventilation.
For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Do not allow to enter drains, sewers or watercourses.
Methods and material for containment and cleaning up	Remove sources of ignition. Prevent product from entering drains. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.
Reference to other sections	For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Wear appropriate personal protective equipment (See Section 8). Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Do not empty into drains. Avoid release to the environment.
Conditions for safe storage, including any incompatibilities	Store locked up. Store away from incompatible materials.
Specific end use(s)	Electrical insulating oil; Insulating oil within transformers; Insulating oil with anti oxidant additive.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Austria. MAK List

Components	Type	Value
Butylhydroxytoluene (BHT) (128-37-0)	MAK	10 mg/m3

Belgium. Exposure Limit Values.

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TWA	2 mg/m3	Vapor and aerosol.
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value
Butylhydroxytoluene (BHT) (128-37-0)	STEL	50 mg/m3
	TWA	10 mg/m3
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	TWA	5 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TLV	10 mg/m3	
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	TLV	1 mg/m3	Mist.

Finland. Workplace Exposure Limits

Components	Type	Value
Butylhydroxytoluene (BHT) (128-37-0)	STEL	20 mg/m3
	TWA	10 mg/m3

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value
Butylhydroxytoluene (BHT) (128-37-0)	VME	10 mg/m3

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TWA	10 mg/m3	Inhalable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TWA	10 mg/m3	
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	TWA	5 mg/m3	Mist.

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value	Form
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	Ceiling	5 mg/m3	Mist.

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TWA	10 mg/m3	
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	TWA	1 mg/m3	Mist.

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TWA	10 mg/m3	
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	TWA	0,2 mg/m3	Inhalable fraction.

Italy. OELs

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TWA	2 mg/m3	Inhalable fraction and vapor.
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	TWA	5 mg/m3	Inhalable fraction.

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)

Components	Type	Value	Form
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	STEL	3 mg/m3	Fume and mist.
	TWA	1 mg/m3	Fume and mist.

Netherlands. OELs (binding)

Components	Type	Value	Form
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	TWA	5 mg/m3	Mist.

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	TLV	1 mg/m3	Mist.

Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment

Components	Type	Value	Form
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	STEL	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TWA	2 mg/m3	Vapor and aerosol, inhalable fraction.
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	STEL	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	STEL	10 mg/m3
	TWA	5 mg/m3

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TWA	10 mg/m3	Inhalable fraction.

Spain. Occupational Exposure Limits

Components	Type	Value	Form
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

Sweden. Occupational Exposure Limit Values

Components	Type	Value	Form
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	STEL	3 mg/m3	Mist.
	TWA	1 mg/m3	Mist.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	TWA	10 mg/m3	Inhalable dust.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Butylhydroxytoluene (BHT) (128-37-0)	TWA	10 mg/m3

Recommended monitoring procedures Follow standard monitoring procedures.

DNEL

Components	Type	Route	Value	Form
Butylhydroxytoluene (BHT) (128-37-0)	Industry	Inhalation	2 mg/m3	
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	Workers	Inhalation	5,4 mg/m³/8h	Long term Local effects

PNEC

Components	Type	Route	Value
Butylhydroxytoluene (BHT) (128-37-0)	Industry	Water	0,004 mg/l
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	Oral	Oral	9,33 mg/kg

Exposure controls

Appropriate engineering controls Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Individual protection measures, such as personal protective equipment

General information Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection	If contact is likely, safety glasses with side shields are recommended.
Skin protection	
- Hand protection	Wear protective gloves. Suitable gloves can be recommended by the glove supplier.
- Other	Normal work clothing (long sleeved shirts and long pants) is recommended.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Thermal hazards	When material is heated, wear gloves to protect against thermal burns.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Contain spills and prevent releases and observe national regulations on emissions. Environmental manager must be informed of all major releases.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear bright liquid.
Physical state	Liquid.
Form	Liquid.
Colour	Colourless, clear.
Odour	Slight petroleum odor.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	>= 232 °C (>= 449,6 °F)
Flash point	> 135 °C (> 275 °F) Pensky-Martens Closed Cup >= 145 °C (>= 293 °F) Cleveland open cup
Auto-ignition temperature	>= 315 °C (>= 599 °F)
Flammability (solid, gas)	Not applicable.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Oxidising properties	Not applicable.
Explosive properties	Not applicable.
Explosive limit	Not applicable.
Vapour pressure	Not available.
Vapour density	Not available.
Evaporation rate	Not available.
Relative density	0,88 (Water = 1)
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Pour point	-53,9 °C (-65 °F)
Viscosity	9,1 cSt (40 °C)
Percent volatile	Not available.
Other information	IP346 method DMSO extract for base oil substances: <3,0%.

Section 10: Stability and reactivity

Reactivity	The product is non reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
Incompatible materials	Strong oxidising agents.

Hazardous decomposition products	Carbon monoxide. Carbon dioxide.

Section 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Ingestion	May be fatal if swallowed and enters airways.
Inhalation	In high concentrations, vapours may be irritating to the respiratory system.
Skin contact	Prolonged or repeated skin contact may cause drying, cracking, or irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Direct contact with eyes may cause temporary irritation. Exposed may experience eye tearing, redness, and discomfort.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.

Components	**Test results**
Butylhydroxytoluene (BHT) (128-37-0)	Acute Dermal LD50 Rat: > 2000 mg/kg
	Acute Oral LD50 Rat: 890 mg/kg
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	Acute Dermal LD50 Rabbit: > 5000 mg/kg
	Acute Inhalation LC50 Rat: > 5 mg/l
	Acute Oral LD50 Rat: > 5000 mg/kg

Skin corrosion/irritation	Prolonged or repeated skin contact may cause drying, cracking, or irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitisation	Not classified.
Skin sensitisation	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

Butylhydroxytoluene (BHT) (CAS 128-37-0)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity	Not classified.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.
Mixture versus substance information	Not available.
Other information	No other specific acute or chronic health impact noted.

Section 12: Ecological information

Toxicity

Components	**Test results**
Butylhydroxytoluene (BHT) (128-37-0)	EC50 Water flea (Daphnia pulex): 1,44 mg/l 48 hours
Distillate (Petroleum), severely Hydrotreated Light Naphthenic (64742-53-6)	EL50 Daphnia magna: > 10000 mg/l 48 hours
	NOEL Daphnia magna: > 10 mg/l 21 days
	NOEL Daphnia magna: > 1000 mg/l 48 hours

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	Not available.
Mobility	The product is immiscible with water and will spread on the water surface.
Environmental fate - Partition coefficient	Not available.
Mobility in soil	Not available.

Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
Other adverse effects	Harmful to aquatic life with long lasting effects.

Section 13: Disposal considerations

Waste treatment methods

Residual waste	Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	13 03 07 The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Do not discharge into drains, water courses or onto the ground. This material and its container must be disposed of as hazardous waste. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14: Transport information

ADR

The product is not covered by international regulation on the transport of dangerous goods.

RID

The product is not covered by international regulation on the transport of dangerous goods.

ADN

The product is not covered by international regulation on the transport of dangerous goods.

IATA

The product is not covered by international regulation on the transport of dangerous goods.

IMDG

The product is not covered by international regulation on the transport of dangerous goods.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

Section 15: Regulatory information

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

EU regulations

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

Not listed.

Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registery (EPER)

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List

Not listed.

Other regulations	The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended and respective national laws implementing EC directives. This preparation is classified as dangerous according to Directive 1999/45/EC and its amendments. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
National regulations	Follow national regulation for work with chemical agents.
Chemical safety assessment	No Chemical Safety Assessment has been carried out.

Section 16: Other information

List of abbreviations	CLP: Regulation No. 1272/2008. DSD: Directive 67/548/EEC. DNEL: Derived No-Effect Level. PNEC: Predicted No-Effect Concentration. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent and very Bioaccumulative.
References	REACH Registration; EC 265-156-6; 01-2119480375-34-xxxx.
Information on evaluation method leading to the classification of mixture	The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.
Full text of any statements or R-phrases and H-phrases under Sections 2 to 15	R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. H304 - May be fatal if swallowed and enters airways. H410 - Very toxic to aquatic life with long lasting effects.
Training information	Follow training instructions when handling this material.
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.
Issue date	14-February-2012
Revision date	14-February-2012
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