MATERIAL SAFETY DATA SHEET
DIATHERMIC OIL

Version: 2 **Revision Date: September/2006**

1. PRODUCT AND DATA IDENTIFICATION

1.1. Product Identification

Article name and code: **JETLITER N32**
Chemical Name: ---
CAS number: ---

1.2. Article Title

Radiator diathermic Oil

1.3. Manufacturer's name and address:

SHUNDE JETLITER OIL CHEMICAL Co., Ltd
N° 16, SECOND NANDI ROAD
RONG GUI, SHUNDE DISTRICT, FOSHAN CITY
SHUN DE
phone: 0757 28304986, 0757 26113763
fax: 0757 28301728
web site: http://www.jetliter.com

Distributor's name and address:

De'Longhi Spa
Via Ludovico Seitz, 47
31100 TREVISO (TV)

phone: +39 0422 4131
fax: +39 0422 414294
web site: www.delonghi.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

2.1. Hazardous substances according to directive 67/548/CEE and next modifications and integrations.

None.
Mineral Oil mist classification: dangerous, according to OSHA normative

2.2. Other substances

Main substance	Severely refined petroleum distillates with aromatic fraction (measured by DMSO IP346 extract) lower to 3%
CAS number	CAS not available
EC number	-
% weight	98.5 – 99%
Phrases R	-
Phrases S	-
Exposure limits	-
Other substances	Additive: high temperature depurative (0.25-0.40%); high temperature antioxidant (0.50-0.75%); antirust (0.05-0.10%); repel-coagulant (0.20-0.25); high temperature defoamer (0.005%);

CAS number	exclusive
EC number	-
% weight	1.0 – 2.5%
Phrases R	-
Phrases S	-
Exposure limits	-

3. HAZARDS IDENTIFICATION

Product classified non-hazardous according to directive 67/548/CEE and next modifications and integrations

3.0. Precautionary measures
Avoid the contact with eyes, skin and clothing and the prolonged breathing of vapour, mist or gas. Wash for several minutes after handling. Keep out from any ignition source.

3.1. Inhalation: health risks and exposure effects
Vapours or mist over permissible concentrations or in unusually high concentrations generated from spraying or heating the material or as exposure in poorly ventilated areas or in confined spaces, may cause irritation (nose and throat), headache, nausea e drowsiness.

3.2. Ingestion: health risks and exposure effects
If more than several mouthfuls are swallowed, abdominal discomfort, nausea e diarrhoea may occur. Aspiration may occur during swallowing or vomiting resulting in a dangerous retention of fluids and in lungs inflammation (pulmonary edema).
The swallow is not the usual way to exposition.

3.3. Skin contact: health risks and exposure effects
Contact may cause reddening and a burning sensation. Prolonged or repeated contact may aggravate the irritation and give exsiccation and chapping with consequent dermatitis (skin inflammation).
See the section 11 for other information about the potential acute or chronics effects.

3.4. Skin absorption: health risks and exposure effects
There are no bibliographic data. No harmful effects could be expected by skin absorption.

3.5. Medical conditions generally aggravated by exposure
Prolonged or repeated skin contact may produce or aggravate an existing dermatitis.

4. FIRST AID MEASURES

Ingestion: If swallowed, do not induce vomiting. Get medical attention. Send to hospital if the material is aspirated in lungs and for cleanout the stomach and intestines.

Inhalation:	If irritation, headache, nausea or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.
Skin contact:	Remove the contaminated shoes and clothing. Cleanout contaminated parts with plenty of soap and water or with skin detergents for several minutes. Get medical attention if skin or irritation develops or persists.
Eyes contact:	Wash eyes with plenty of water for several minutes. If irritation or reddening coming, remove the patient from the exposition to fresh air. If effect persists, get medical attention.

5. FIRE FIGHTING MEASURES

5.1. Extinguishing Media

Use dry chemical powder, CO_2, foams, water spray.

5.2. Extinguishing Media which must not be used

Don't use water jet not vaporized.

Don't use water near electric installations with voltage.

5.3. Combustion hazard

Avoid to breath smokes.

5.4. Special protective equipment for fire fighters

Wear self–contained breathing apparatus and full protective clothing.

5.5. Health recommendation

In case of fire may develops smokes with aldehydes , carbon, nitrogen and sulphur oxides.

The smoke combustion exposition may produce health risks;

To extinguish the fire use appropriate personal protective equipment or full protective clothing. Wear positive pressure breathing apparatus.

5.6. Fire and explosion hazard recommendation

This material may burns with fire but is not rapid to catch fire. Vapours are more heavy than air and may accumulate in low confined areas. In case of fire high temperature exposure, containers may explode if not suitable refreshed.

See section 7 – Handling and storage, and section 10 – Stability and reactivity.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precaution

Hold the discharge and isolate the area. Don't walk above the contaminated area. Wear suitable protective clothing (See Section 8)and avoid contact with eyes, skin and clothing or the inhalation of vapours. Ventilate the area. Make a ditch and erect a barrier down the came out if in big proportions. Wash deeply the contaminated area to avoid slipping or falling.

6.2. Environmental precaution
Avoid the product contamination of sewers or watercourses. The product is hardly biodegradable. Don't leave the product over soils or watercourses.

6.3. Cleaning methods
Pick up with a suitable absorbent substance. Pour into a container proper to removal.

7. HANDLING AND STORAGE

7.1. Handling
Wear protective gloves. Wash carefully after handling and before lunch or breaks. Avoid Prolonged or repeated contact with skin.

7.2. Storage
Keep the product away from any injection source. Minimize the period of exposition to high temperatures. Keep in hermetic container.
Avoid the water contamination.
For fire prevention, the load of a fire will be calculated using the Inferior Calorific Powered and the speedy of combustion (See section 9 – Physical and Chemical properties).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure limits

The below data is the recommendation by the manufacturer for Mineral Oil mists.

A.C.I.G.I.H.-TLV	TWA – 8 hr	5 mg/m^3
	Critical effect	Lung
A.C.I.G.I.H.-TLV	STEL	10 mg/m^3
	Critical effect	Lung

In case of over exposure of TLV wear an appropriate breathing apparatus

8.2. Hand protective equipment
Wear gloves of oil-impermeable rubber. Avoid prolonged contact with skin.

8.3. Eyes protective equipment
Wear safety glasses when the handling can made splashes.

8.4. Skin protective equipment
Not required in the usual condition of employment. Avoid in any case prolonged contact.

8.5. Other general protection
Is convenient a generic ventilation.

8.6. Hygiene measures
Operate by standard work hygienic practise.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Transparent liquid
Colour :	yellow
Odour:	Characteristic petroleum odour
pH:	None allocated
Boiling point:	None allocated
Melting point:	None allocated
Flash point:	200 °C (392 °F)
Auto ignition:	None allocated
Explosives properties:	None allocated (see section 3, point 3.3)
Combustive properties:	None
Vapour pressure:	None allocated
Density to 15 °C (59 °F):	0,874 Kg/l
Viscosity to 40°C (104 °F):	31,6 cSt
Neutralization number:	0.08 mg KOH/g
Water (K.F.)	< 100 mg/Kg
Inferior Calorific Power:	45880 kJ/Kg
Elementary analysis:	Carbon 82,90 % w/w - Hydrogen 13,22 % w/w

10. STABILITY AND REACTIVITY

10.1. Conditions to avoid
Avoid the exposition to high temperature sources.

10.2. Materials to avoid
Avoid strong oxidizer.

10.3. Hazardous decomposition
Stable in normal condition. In case of fire see section 5.

11. TOXICOLOGICAL INFORMATION

11.1. Inhalation
In case of inhalation, see section 8.

11.2. Ingestion
See section 4.

11.3. Skin touch
No risk in normal conditions . For any abnormal conditions, see section 4

11.4. Carcinogenicity
No bibliographic data.

12. ECOLOGICAL INFORMATION

12.1. Mobility
The product must not contaminate underground waters.

12.2. Persistence and degradability
Material not biodegradable

12.3. Eco toxicity
No data currently available

12.4 Bioaccumulation potential
No data currently available

13. DISPOSAL CONSIDERATIONS

Reutilization: Preferably direct to reutilization.

Removal: Confer to authorized removal systems. Operate with local and national active dispositions.

14. TRANSPORT INFORMATION

ONU	**Class:**	Not classified
ADR/RID	**Class:**	Not classified
IMDG	**Class:**	Not classified
IATA	**Class:**	Not classified

15. REGULATORY INFORMATION

Labelling according by directive 67/548/CE and next modifications and integrations
Product classified not hazardous

16. OTHER INFORMATION

This Material Safety Data Sheet is been compiled in accordance by point 5 of directive 2001/58/CE about "preparations not classified as dangerous within the meaning of Articles 5, 6 and 7 of directive 1999/45/EC, but which contain in an individual concentration of ≥ 1% by weight for non-gaseous preparations and ≥ 2 % by volume for gaseous preparations at least one substance posing health or environmental hazards, or one substance for which there are Community workplace exposure limits.

The product is not inside the scope of above-mentioned directive because it doesn't contain hazardous substances, but the present Safety data sheet is been compiled to give to ultimate user all necessary information to manage risks could be have in emergency situations (fire).

In case of fire, in fact, hazardous substances may produce: in this case we have exposure limits A.C.G.I.H. (see section 8).

No other relevant technical information.

The information contained in this data sheet has been reproduced from available knowledge before the date of compilation

No responsibility could be claimed in case of behaviour, that will not follow instructions given above.

The users are directly responsible to observe lows concerning environmental or company safety and hygiene.

This safety data sheet is been compiled with the collaboration of:

- Chelab S.r.l. - via castellana, 118/a - Resana (TV)

And with the manufacturers data reproduce on:

- Information of row materials manufacturers.

Revisions: this document has been reformatted. Individual changes are not highlighted.