1. Identification of the Substance/Preparation and the Company/Undertaking

Product Name:	Nytro Libra	
Product Type:	Insulating Oil	
Supplier:	Nynas AB P. O. Box 10700 S-121 29 STOCKHOLM Sweden	
E-mail address:	ProductHSE@nynas.com	
Telephone No:	+46-8-602 1200	Fax: +46-8-81 62 02
Emergency Phone No:	+46-8-33 70 43	

2. Hazards identification

Classification:	No classification needed according to 67/548/EC and 1999/45/EC.
Human Health:	Inhalation of vapours and/or mists might irritate respiratory tract. Prolonged skin contact will cause defatting and possible irritation. Eye contact might cause irritation.
Environment:	Slow biodegradation, the product will remain for long time in the environment. Risk for contamination of earth, soil and water.
Physical and chemical hazard:	At elevated temperatures flammable vapours and decomposition products will be released. Risk for slippery floors if spilled out.

3. Composition/Information of Ingredients

Chemical Name:	CAS-No.:	EC-No.:	Weight-%	Symbols/Phrases
Hydrotreated Light Naphthenic Distillate	64742-53-6	265-156-6	65-85	
Hydrotreated Light Paraffinic Distillate	64742-55-8	265-158-7	15-35	
Solvent Refined Light Naphthenic Distillate	64741-97-5	265-098-1	<5	

4. First Aid Measures

General advice:

Inhalation:	If inhalation of mists, fumes or vapours occur causing irritation, move to fresh air. If the symptoms persist, obtain medical advice.
Skin contact:	Remove immediately adhering matter and wash off with soap and plenty of water.
Eye contact:	Rinse with plenty of water.
Ingestion:	Clean mouth with water. Obtain medical advice if a large amount has been swallowed. Do not induce vomiting.

5. Fire-fighting Measures

Suitable extinguishing media:	Extinguish preferably with dry chemical, carbon dioxide (CO_2), or foam. Waterspray / mist may be used.
Extinguishing media which must not be used for safety reasons:	Water jet, unless used by authorised people.(Stain risk caused by combustion).

6. Accidental Release Measures

Personal precautions:	Suitable protection equipment should be used. In case of large spillage, the cleaning procedure should be carried out using suitable protective clothing such as overall, gloves and boots. Remove contaminated clothes as soon as possible. Smaller spillage can be wiped up with paper cloths, using protective gloves.
Environmental precautions:	Prevent spills to enter and spread to drains, sewers, water courses, and soil. Contact local safety authorities.
Methods for cleaning up:	Absorb leaking product with sand, earth or other suitable inert material and collect. Disposal according to section 13.

7. Handling and Storage

Handling:	Handle in accordance with good industrial hygiene and safety practices. If handled at elevated temperatures or with high speed mechanical equipment, vapours or mists might be released and require a well ventilated workplace.
Storage:	Store at ambient temperature or with lowest necessary heating as handling requires.

8. Exposure Controls/Personal Protection

Control parameters:	Exposure via the air and normal handling.
Chemical name:	Mineral oil.
Short term value:	5 mg/m^3. TLV-TWA 8 hours ACGIH (1998).
Engineering measures to reduce exposure:	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.

Personal protection equipment:

- Respiratory protection:	If the product is heated under manual handling, use suitable mask with filter A1P2 or A2P2. Handling in automatic production lines, with exhaust or ventilation, will not require mask.
- Hand protection:	Wear oil-resistant protective gloves if there is a risk of repeated skin contact. Suitable gloves are neoprene, nitrile- or acrylnitrilebutadiene rubber, or PVC. Take notice of CEN 420:94, CEN 374:1-3:94 and CEN 388:94.
- Eye protection:	Wear safety goggles / safe shield if splashes may occur.
- Skin and body protection:	Wear protective clothing if there is a risk of skin contact and change them frequently, or when contaminated.
Hygienic measures:	Act in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	Viscous liquid
Colour:	<0.5, pale light yellow
Odour:	Odourless / light petroleum
Melting point/pour point:	-54°C
Initial boiling point:	>250°C
Density 15°C:	886 kg/m3
Flash point, PM:	144°C
Auto ignition temp.:	>250°C
Solubility in water:	Non soluble
Solubility in organic solvents:	Soluble
Decomposition temp.:	>280°C
Vapour pressure at 100°C:	160 Pascal
DMSO extractible compounds according to IP346:	< 3%
Calculated partition coefficient	>6

n-octanol/water, log P_{ow}:	
Viscosity at 40°C:	9,5 cSt
pH:	non relevant

10. Stability and Reactivity

Stability:	Stable at normal conditions. Start to decompose at 280°C or higher.
Avoid:	Excessive heating and highly oxidizing agents.
Hazardous decomposition products:	Flammable gases which might also be noxious. With air present, there is a risk for auto ignition at temperatures >270°C.

11. Toxicological Information

Acute toxicity:	Studies available indicate oral and dermal LD_{50}s of >5 000 mg/kg which is considered as low acute toxicity.
Local effects:	
- Inhalation:	Prolonged and repeated inhalation of mist or vapour generated at elevated temperatures may irritate respiratory tract.
- Oral:	May cause nausea and eventually vomiting and diarrhoea.
- Skin contact:	Prolonged or repeated exposure may lead to defatting of the skin and subsequent irritation.
- Eye contact:	May cause redness and transient pain.
- Sensitisation:	Studies indicate no evidence of sensitisation.

12. Ecological Information

Mobility:	Low, due to low water solubility.
Persistence/degradability:	The baseoil is not readily biodegradable. Substances may not meet criteria for ready biodegradability. Studies indicate inherent, primary biodegradation in the range of 20-60 % based on carbondioxide evolution.
Bio-accumulation:	Base oil has Log P_{ow} in the range >3,9-> 6,0. Log P_{ow} is used for estimating the bioacccumulation in fish. A value >3,0 indicates possible bioaccumulation. The size of the hydrocarbon molecules reduces the risk for bioaccumulation.
Ecotoxicity:	Aquatic toxicity data on base oils indicate LC_{50} values of >1 000 mg/l, which is considered as low toxicity. Chronic toxicity studies shows no long-term hazard to the aquatic environment.

13. Disposal Considerations

Residues of unused product is not regarded as hazardous waste. Residues of products/packageing must not be disposed of in the environment, but taken care of in accordance with local regulations.

Emptying instructions:

Barrels and equals: Turn the barrel upside down and tilt it approximately 10° until nondripping. Nondripping is less than one drop / minute at 15 °C. The product viscosity depends on temperature, and it is important that the emptying not is done at to low temperature. It can be necessary to scrape out highviscous products.
When the barrel is nondripping send it for recycling. If the residue volume is more than 1% send it for destruction of barrels. Empty barrels with < 1 % residue is not dangerous goods. Notify local regulations.

Bags for one way use/multiple use: Follow instructions given by the bag manufacturer. The last residues in the bag can be removed by placing the hose over the remaining residues or by lifting the bag so the product can run towards the hose.
Bottom residues; roll up the bag towards the hose to press out the oil
One way bags of polyethylene can be recycled or disposed of by incineration. Notify local regulations.

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14. Transport Information

The product is not classified as hazardous goods for land, sea and air transport according to the respective regulations (ADR, IMDG, IATA-DGR).

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15. Regulatory Information

Classified according to European directives on classification of hazardous substances and preparations. Not classified as hazardous. No statutory label required.

Listed in TSCA (Toxic Substances Control Act) and EINECS.

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16. Other Information

The information for labelling and ecotoxicity is according to Concawe Report No. 95/59, 98/54, 05/6 and 01/54.
Classified according to the Dangerous Substance Directive, 67/548/EC up to the most recent ATP, the Dangerous Preparation Directive 1999/45/EC, and the Safety Data Sheet Directive 2001/58/EC and REACH (EC) No 1907/2006 according to transitional provisions.

Component CAS no 64742-53-6 has DMSO extractible compounds according to IP 346 <3%.
Component CAS no 64742-55-8 has DMSO extractible compounds according to IP 346 <3%.
Component CAS no 64741-97-5 has DMSO extractible compounds according to IP 346 < 3%

Updated according to DSD, DPD, REACH and SDSD as above. Latest update: 2008-03-03
Replacing revision date: 2006-11-21
Changes to previous version: Section 1, 2, 3, 16

Nota L
The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 w%w DMSO extract as measured by IP 346. This Nota applies only to certain complex oil-derived substances in Annex 1.

Nota N
The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it was produced is not a carcinogen. This Nota applies only to certain complex oil-derived substances in Annex 1.