Safety Data Sheet

1. Identification of the substance/preparation and company/undertaking

Material Name : **Roto-Inject Fluid Ndurance**

Product Use : Compressor Oil.

Product Code : 0017 5300 10

Manufacturer/Supplier

: **Atlas Copco Airpower nv,**
Boomsesteenweg 957,
2610 Wilrijk, Belgium

Telephone : Please contact Atlas Copco UK +44 845 601 0001 or the Atlas Copco Airpower office in Belgium: +32 3 870 2111 (8am-5pm CET)

Email Contact for Safety Data Sheet

: If you have any enquiries about the content of this Safety Data Sheet please email info.lubricants.cts@group.atlascopco.com

Emergency Telephone Number

: Only for medical related issues, please contact medical service of Atlas Copco Airpower in Belgium: +32 3 870 2105 (8am-5pm CET)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

: Not a hazardous substance or mixture.

2.2 Label Elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms : No Hazard Symbol required

Signal Words : No signal word

Hazard Statement : PHYSICAL HAZARDS:
Not classified as a physical hazard under CLP criteria.
HEALTH HAZARDS:
Not classified as a health hazard under CLP criteria.
ENVIRONMENTAL HAZARDS:
Not classified as an environmental hazard under CLP criteria.

2.3 Precautionary Statements

: PREVENTION:
No precautionary phrases.
RESPONSE:
No precautionary phrases.
STORAGE:
No precautionary phrases.
DISPOSAL:
No precautionary phrases.

2.4 Other Hazards which do not result in classification

: This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.
Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Used oil may contain harmful impurities.
Not classified as flammable but will burn.

3. Composition/information on ingredients

3.1 Mixture

Chemical nature : Highly refined mineral oils and additives
The highly refined mineral oil contains <3% (w/w) DMSO extract, according to IP346.

3.2 Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *		Asp. Tox.1; H304	0 - 90

For explanation of abbreviations see section 16.

4. First aid measures

4.1 Description of first aid measures

General advice : Not expected to be a health hazard when used under normal conditions.

Protection of first-aiders
: When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.

If inhaled : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.

In case of skin contact
: Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

4.2 Most Important Symptoms/Effects, Acute & Delayed

Symptoms : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

4.3 Indication of any immediate medical attention and special treatment needed

: Treat symptomatically.

5. Fire fighting measures

Clear fire area of all non-emergency personnel.

5.1 Extinguishing media

Suitable extinguishing media
: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media
: Do not use water in a jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting
: Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.

5.3 Advice for firefighters

Special protective equipment for firefighters
: Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

Specific extinguishing methods
: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

6 Accidental release measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions : 6.1.1 for non-emergency personnel:
Avoid contact with skin and eyes.
6.1.2 for emergency responders:
Avoid contact with skin and eyes.

6.2 Environmental Precautions
: Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

6.3 Methods and Material for Containment and Cleaning Up
: Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

6.4 Reference to other sections
: For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet., For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

7. Handling and storage

General Precautions
: Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

7.1 Precautions for Safe Handling
: Avoid prolonged or repeated contact with skin. Avoid inhaling

vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Product Transfer : This material has the potential to be a static accumulator. Proper grounding and bonding procedures should be used during all bulk transfer operations.

7.2 Conditions for safe storage, including any incompatibilities

Other data : Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers. Store at ambient temperature. Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.

Packaging material : Suitable material: For containers or container linings, use mild steel or high density polyethylene.

Unsuitable material : PVC.

Container Advice : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

7.3 Specific end use(s)

Specific use(s) : Not applicable.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Oil mist, mineral		TWA	5 mg/m3	US. ACGIH Threshold Limit Values

Biological Exposure Index (BEI)

: No biological limit allocated.

Monitoring Methods : Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory. Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/
Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/
Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany. http://www.dguv.de/inhalt/index.jsp
L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

8.2 Exposure controls

Engineering measures

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated. Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or for subsequent recycle. Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

8.3 Individual Protection Measures

Personal protective equipment

The provided information is made in consideration of the PPE directive (Council Directive 89/686/EEC) and the CEN European Committee for Standardisation (CEN) standards.
Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Eye protection : If material is handled such that it could be splashed into eyes, protective eyewear is recommended. Approved to EU Standard EN166.

Hand protection Remarks

: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with reference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Skin and body protection

: Skin protection is not ordinarily required beyond standard work clothes. It is good practice to wear chemical resistant gloves.

	Respiratory Protection	:	No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [Type A/Type P boiling point > 65°C (149°F)] meeting EN14387 and EN143.
	Thermal Hazards	:	Not applicable

8.6 Environmental Exposure Controls

: Take appropriate measures to fulfil the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

9. Physical and chemical properties

9.1	**Appearance**	:	Liquid at room temperature.
	Colour	:	light brown
	Odour	:	Slight hydrocarbon
	Odour threshold	:	Data not available
	pH	:	Not applicable.
	Initial Boiling Point and Boiling Range	:	> 280 °Cestimated value(s)
	Pour point	:	-30 °CMethod: Unspecified
	Flash point	:	250 °C Method: ASTM D92
	Evaporation rate	:	Data not available
	Flammability (solid, gas)	:	Data not available
	Upper explosion limit	:	Typical 10 %(V)
	Lower explosion limit	:	Typical 1 %(V)
	Vapour pressure	:	< 0,5 Pa (20 °C) estimated value(s)
	Relative vapour density	:	> 1estimated value(s)
	Relative density	:	0,870 (15 °C)
	Density	:	870 kg/m3 (15,0 °C) Method: Unspecified Solubility(ies)
	Water solubility	:	negligible
	Solubility in other solvents	:	Data not available
	Partition coefficient noctanol/ water	:	Pow: > 6(based on information on similar products)
	Auto-ignition temperature	:	> 320 °C
	Viscosity		
	Viscosity, dynamic	:	Data not available

	Viscosity, kinematic	:	55 mm2/s (40,0 °C) Method: Unspecified
	Explosive properties	:	Not classified
	Oxidizing properties	:	Data not available
9.2	**Other information**		
		:	Data not available
	Flammability	:	Data not available

10. Stability and reactivity

10.1 **Reactivity** : The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

10.2 **Chemical stability** : Stable. No hazardous reaction is expected when handled and stored according to provisions

10.3 **Possibility of Hazardous Reactions**

: Reacts with strong oxidising agents.

10.4 **Conditions to Avoid** : Extremes of temperature and direct sunlight.

10.5 **Incompatible Materials**

: Strong oxidising agents.

10.6 **Hazardous Decomposition Products**

: Hazardous decomposition products are not expected to form during normal storage.

11. Toxicological information

11.1 **Information on toxicological effects**

Basis for Assessment : Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Likely Routes of Exposure

: Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Acute toxicity

Product :

Acute Oral Toxicity : LD50 rat: > 5.000 mg/kg
Remarks: Expected to be of low toxicity:

Acute Inhalation Toxicity

: Not considered to be an inhalation hazard under normal conditions of use.

Acute Dermal Toxicity : LD50 Rabbit: > 5.000 mg/kg
Remarks: Expected to be of low toxicity:

Skin corrosion/irritation

Product :

: Remarks: Expected to be slightly irritating., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Serious eye damage/irritation

Product :

: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product :

: Remarks: For respiratory and skin sensitisation:, Not expected to be a sensitiser

Germ cell mutagenicity

Product :

: Not considered a mutagenic hazard.

Carcinogenicity

Product :

: Not expected to be carcinogenic.
Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Material	:	GHS/CLP Carcinogenicity Classification
Highly refined mineral oil (IP346 <3%)	:	No carcinogenicity classification.

Reproductive Toxicity

Product :

: Remarks: Not expected to impair fertility., Not expected to be a developmental toxicant.

STOT - single exposure

Product :

: Remarks: Not expected to be a hazard.

STOT - repeated exposure

Product :

: Remarks: Not expected to be a hazard.

Aspiration toxicity

Product :

: Not considered an aspiration hazard.

Further information

Product :

: Remarks: 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., ALL used oil should be handled with caution and skin contact avoided as far as possible.
Remarks: Slightly irritating to respiratory system.
Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

Summary on evaluation of the CMR properties

Germ cell mutagenicity- Assessment

: This product does not meet the criteria for classification in categories 1A/1B.

Carcinogenicity - Assessment

: This product does not meet the criteria for classification in categories 1A/1B.

Reproductive toxicity -Assessment

: This product does not meet the criteria for classification in categories 1A/1B.

12. Ecological information

12.1 Toxicity

Basis for Assessment

: Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).(LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).

Product :

Toxicity to fish (Acutetoxicity)

: Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to crustacean (Acute toxicity)

: Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic plants (Acute toxicity)

: Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity)

: Remarks: Data not available

Toxicity to crustacean (Chronic toxicity)

: Remarks: Data not available

Toxicity to microorganisms (Acute toxicity)

: Remarks: Data not available

12.2 Persistence/degradability

Product :

: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.

12.3 Bioaccumulative Potential

Product :

: Contains components with the potential to bioaccumulate.

Partition coefficient: noctanol/ water

: Pow: > 6Remarks: (based on information on similar products)

12.4 Mobility in soil

Product :

Mobility : Remarks: Liquid under most environmental conditions., If it enters soil, it will adsorb to soil particles and will not be mobile.
Remarks: Floats on water.

12.5 Results of PBT and vPvB assessment

Product :

Assessment : This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

Product :

Additional ecological information

: Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities., Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.
Poorly soluble mixture., May cause physical fouling of aquatic organisms. Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

13. Disposal considerations

13.1 Waste treatment methods

Product	:	Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Waste, spills or used product is dangerous waste. Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.
Contaminated packaging	:	Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.
Local legislation		
Waste catalogue	:	EU Waste Disposal Code (EWC):
Waste Code	:	13 02 05*
Remarks	:	Classification of waste is always the responsibility of the end user.

14. Transport information

14.1 UN number

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.2 Proper shipping name

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.3 Transport hazard class

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.4 Packing group

ADN	:	Not regulated as a dangerous good
CDNI Inland Water Waste Agreement		
	:	NST 3411 Mineral Lubricating Oils
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.5 Environmental hazards

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good

14.6 Special precautions for user

Remarks	:	Special Precautions: Refer to Chapter 7, Handling & Storage,

for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

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

Pollution category	:	Not applicable
Ship type	:	Not applicable
Product name	:	Not applicable
Special precautions	:	Not applicable
Additional Information	:	MARPOL Annex 1 rules apply for bulk shipments by sea.

15. Regulatory information

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

REACH - List of substances subject to authorisation (Annex XIV)

: Product is not subject to Authorisation under REACH.

Volatile organic compounds

: 0 %

The components of this product are reported in the following inventories:

EINECS	:	All components listed or polymer exempt.
TSCA	:	All components listed.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. Other information

16.1 Full text of H-Statements

H304 : May be fatal if swallowed and enters airways.

Full text of other abbreviations

Asp. Tox. : Aspiration hazard

Abbreviations and Acronyms

: The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS = Australian Inventory of Chemical Substances
ASTM = American Society for Testing and Materials
BEL = Biological exposure limits
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
CAS = Chemical Abstracts Service
CEFIC = European Chemical Industry Council
CLP = Classification Packaging and Labelling
COC = Cleveland Open-Cup
DIN = Deutsches Institut fur Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List
EC = European Commission
EC50 = Effective Concentration fifty
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals
ECHA = European Chemicals Agency
EINECS = The European Inventory of Existing Commercial

Chemical Substances
EL50 = Effective Loading fifty
ENCS = Japanese Existing and New Chemical Substances Inventory
EWC = European Waste Code
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Inhibitory Concentration fifty
IL50 = Inhibitory Level fifty
IMDG = International Maritime Dangerous Goods
INV = Chinese Chemicals Inventory
IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables
KECI = Korea Existing Chemicals Inventory
LC50 = Lethal Concentration fifty
LD50 = Lethal Dose fifty per cent.
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading
LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level
OE_HPV = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of Chemicals
RID = Regulations Relating to International Carriage of Dangerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average
vPvB = very Persistent and very Bioaccumulative

Further information

Other information : No Exposure Scenario annex is attached to this safety data sheet. It is a non-classified mixture containing hazardous substances as detailed in Section 3; relevant information from Exposure Scenarios for the hazardous substances contained have been integrated into the core sections 1-16 of this SDS. A vertical bar (|) in the left margin indicates an amendment from the previous version. This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.