

ARDROX HF-P

SAFETY DATA SHEET (SDS)

Please ensure that this SDS is received by the appropriate persons


Review Date: 31/08/2023 v01

Emergency: 0860 02 02 02

Document Number: AFX-SDS-0075

1. PRODUCT AND COMPANY IDENTIFICATION	
Product Synonym	ARDROX HF-P NDT Penetrant
Chemical Formula	Petroleum Ether, Kerosene
Trade Name	Afrox ARDROX HF-P 996-PB
Product Package	400 ml can
Product Code	W033570
Company Identification	African Oxygen Limited Grayston Office Park Building 7 128 Peter Road Sandown, Sandton, 2196 Tel. No: (011) 490-0400 Fax No: (011) 490-0530 Email: customer.service@afrox.linde.com www.afrox.com
Emergency Numbers	0860 02 02 02 (Afrox)

2. HAZARD IDENTIFICATION	
Classification	Classification under South African Hazardous Chemical Substances Regulations subsequently amended. (HCS) Classification under the Globally Harmonized System of classification and labelling of chemicals (GHS)
Emergency Overview	Colour: Dark red Odour: Petroleum Taste: Petroleum Physical State: Liquid
Main Hazards	Highly Flammable
Adverse Health Effects	Danger! highly flammable liquid and vapour. Vapour may cause flash fire. Harmful if swallowed or inhaled. Causes irritation to skin, eyes and respiratory tract. Affects central nervous system.
Chemical Hazards	ARDROX HF-P is Highly Flammable
Biological Hazards	Hazardous to the aquatic environment
Vapour Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention
GHS Classification	Highly flammable liquid and vapour – Category 2 May be fatal if swallowed and enters airway - Category 1 Causes skin irritation - Category 2 Causes serious eye irritation – Category 2A Pressurise container: may burst if heated – Category 3 Suspected of damaging fertility or the unborn child – Category 2

	May cause damage to organs through prolonged or repeated exposure - Category 2 Toxic to aquatic life with long lasting effects – Category 2
GHS Pictogram	
GHS Signal Words	Danger
GHS Hazard Statements	H222 Extremely flammable aerosol H304 May be fatal if swallowed and enters airways H315 Causes skin irritation H319 Causes serious eye irritation H229 Pressurise container: may burst if heated H361 Suspected of damaging fertility or the unborn child H336 May cause drowsiness or dizziness H373 May cause damage to organs through prolonged or repeated exposure H411 Toxic to aquatic life with long lasting effects
GHS Precautionary Statements	Prevention: P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking P211: Do not spray on an open flame or other ignition source P251: Do not pierce or burn, even after use P233: Keep container tightly closed P240: Ground/Bond container and receiving equipment - if electrostatically sensitive material is for reloading. - if product is volatile so as to generate hazardous atmosphere P241: Use explosion-proof electrical/ventilating/ lighting and equipment P242: Use only non-sparking tools P280: Wear protective gloves/clothing/eye protection/face protection P243 Take precautionary measures against static discharge P264: Wash skin thoroughly after handling. P261: Avoid breathing fumes/gas/mist/ vapours/spray P271: Use only outdoors or in a well-ventilated area P201: Obtain special instructions before use P202: Do not handle until all safety precautions have been read and understood P273: Avoid release to the environment Response: P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes.

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	<p>Remove contact lenses, if present and easy to do. Continue rinsing</p> <p>P370 + P378: In case of fire: Use water spray for extinction</p> <p>P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</p> <p>P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P337 + P313: If eye irritation persists: Get medical advice/attention</p> <p>P331: Do NOT induce vomiting</p> <p>P302 + P352: IF ON SKIN: Wash with plenty of water</p> <p>P321: Specific treatment refer section 4 first aid measures</p> <p>P332 + P313: If skin irritation occurs: Get medical advice/attention</p> <p>P362 + P364: Take off contaminated clothing and wash it before reuse</p> <p>P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing</p> <p>P312: Call a POISON CENTRE/doctor if you feel unwell</p> <p>P308 + P313: IF exposed or concerned: Get medical advice/attention</p> <p>P391: Collect spillage</p> <p>Storage:</p> <p>P410 + P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C</p> <p>P403: Store in a well-ventilated place</p> <p>P233: Keep container tightly closed</p> <p>P235: Keep cool</p> <p>P405: Store locked up</p> <p>Disposal:</p> <p>P501: Dispose of contents/container to hazardous or special waste collection point</p>
Other Hazards that do not result in classification	None

ERG No	128
Hazard class	3
Hazchem Warning	F1 Flammable
4. FIRST AID MEASURES	
Eye contact	Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention. Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids
Skin Contact	Wash with soap and water. Get medical attention if irritation develops
Ingestion	Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention. Have conscious person drink several glasses of water
Inhalation	Very hazardous in case of inhalation. Allow the victim to rest in a well-ventilated area. Seek immediate medical attention. If the victim is not breathing, perform mouth-to-mouth resuscitation

5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media	COMBUSTIBLE SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Do not use water jet. Use DRY chemical powder, CO2, water spray or foam
Unsuitable extinguishing media:	Do not use water jet
Specific Hazards	This ARDROX HF-P fluid is extremely flammable. When handling the liquid, rubber gloves and eye protection should be worn AEROSOLS: In a fire, beware of exploding aerosols cans. Container explosion may occur under fire conditions or when heated. Vigorously supports combustion. The vapour is heavier than air and may spread over a wide area leading to the risk of remote ignition and flashback. The aerosol package comprises the product and a non-flammable propellant in a pressurised container
Special fire fighting procedures:	None required. This product is flammable. Remove containers from the vicinity of the fire if safe to do so. Keep containers cool that cannot be removed. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Special protective equipment for firefighters:	Be sure to use an approved / certified respirator or equivalent Eye protection and protective gloves should be worn when handling the product for lengthy periods of time.

3. COMPOSITION OF INGREDIENTS

Chemical name	Petroleum Ether
Chemical family	
CAS No	8032-32-4
UN No	1268
ERG No	128
Hazard class	3
Hazchem Warning	F1 Flammable
Chemical name	Kerosene
Chemical family	
CAS No	8008-20-6
UN No	1223

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions.	Eye protection and protective gloves should be worn when handling the product for lengthy periods of time Splash goggles, Overalls, Boots
Environmental Precautions	Eliminate all ignition sources. Contain the spillage to prevent entry into drains or waterways
Methods and material for containment and cleaning up:	Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements. Notify the local authority if a spillage of large quantity into drains or waterways occurs Call for assistance on disposal

7. HANDLING AND STORAGE

Safe Handling	<u>Handling:</u> Keep locked up Keep away from heat. Keep away from source of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas / fumes / vapour / spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids. <u>Storage:</u> Store in a cool, dry, well-ventilated area, out of direct sunlight. Use a "First in-First-Out" inventory system to prevent full containers being stored for excessive periods of time. Keep out of reach of children.
Conditions for safe storage, including any incompatibilities	Exposure to excessive heat for prolonged periods Ensure good stock rotation practices.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Hazards (HCS)	SA - No data available
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Engineering Control Measures	Ventilation should be provided. Ensure that eye wash stations and safety showers are proximal to the work-station location
Personal Protection	Eye protection and protective gloves should be worn when handling the product for lengthy periods of time
Eyes	Safety glasses
Hands	Protective gloves
Body protection:	Overalls
Feet	Safety Shoes

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	ARDROX HF-P
Chemical Symbol	C _n H _{2n+2}
Physical state	Liquid
Form:	Liquid
Colour:	Clear red liquid
Odour:	Petroleum odour
Odour Threshold:	>1ppm
pH:	Neutral
Density	0.85 to 0.87g/cm ³
Melting Point:	<-10°C
Boiling Point:	100°C
Sublimation Point:	No data
Critical Temp. (°C):	No data
Flash Point:	>55°C
Evaporation Rate:	No data
Flammability (solid, gas):	Flammable liquid
Flammability limit - upper (%):	5.9%
Flammability limit - lower(%):	1.1%
Vapour density 20°C:	3.58g/l
Liquid density	0.85 g/cm ³ @20°C
Relative density water=1:	0.85
Solubility(ies)	Miscible with hydrocarbons and halogenated hydrocarbons.
Solubility in Water:	Not soluble in water
Partition coefficient (n-octanol/water):	No data
Autoignition Temperature:	229°C
Decomposition Temperature:	No data
Viscosity	
Kinematic viscosity:	Not available
Dynamic viscosity:	No data
Explosive properties:	Not applicable
Oxidising Properties:	Not applicable
Molecular weight	Not available

10. STABILITY AND REACTIVITY

Reactivity	Not reactive under normal conditions
Chemical stability	Stable under normal conditions

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Possibility of hazardous reactions	No data
Conditions to avoid	Open flame and electrical discharge
Incompatible Materials	Reactive with oxidizing agents, acids, alkalis
Hazardous Decomposition of Products	Carbon oxides (CO, CO ₂) nitrogen oxides (NO, NO ₂).

11. TOXOLOGICAL INFORMATION

Acute Toxicity	Very hazardous in case of inhalation Acute oral toxicity (LD50): >2400mg/kg (Rat – Weighted average theoretically calculated). Acute dermal toxicity (LD50): >2000mg/kg(Rat). (KEROSENE, dearomatized). Acute toxicity of the vapour (LC50): 5000mg/m ³ 4 hours (Rat). (KEROSENE, dearomatized)
Skin & eye contact	Irritating to skin seek medical help immediately.
Chronic Toxicity	Very hazardous in case of ingestion Repeated skin exposure can produce local skin destruction, or dermatitis.
Carcinogenicity	Classified 2A (Probable for human) by IARC (Kerosene).
Mutagenicity	No data
Reproductive Hazards	No data

12. ECOLOGICAL INFORMATION

Toxicity	OSHA 50 ppm 8hr weighted ave Harmful to aquatic life in high concentrations
Persistence and degradability	Expected to be slowly biodegradable. Possibly hazardous short-term degradation products are not likely. Products of biodegradation: Oxidises rapidly by photochemical reactions in air
Bioaccumulative Potential Product	No data
Mobility in soil	No data
Results of PBT and vPvB assessment	No data
Other adverse effects	No data
Effect on ozone layer	No data

Effect on the global warming (CO₂=1)	No data
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13. DISPOSAL CONSIDERATIONS

Disposal Methods	Prevent entry into waterways, sewers and confined areas: dike if necessary. Aerosol cans (used or unused) should be disposed of, without puncturing, via a licensed waste disposal contractor. Product must be removed by a reputable waste disposal company. Recover or recycle, if possible, otherwise incineration. Aerosol cans (used or unused) should be disposed of, without puncturing, via a licensed waste disposal contractor.
Disposal of Packaging	DO NOT RE-USE CONTAINERS. Puncture packaging all plastic containers. Flatten all metal containers. Shred all polywoven bags. As per regulation for aerosol cans.

14. TRANSPORT INFORMATION

Road Transportation	
UN No.	1950
Shipping Name	ARDROX HF-P
ERG No.	128
Class	2
Subsidiary Risk	Highly Flammable & Toxic
Hazchem Warning	Flammable aerosol
IMDG	
IMDG	1950
Shipping Name	ARDROX HF-P
ERG No.	128
Class	2
Subsidiary Risk	Highly Flammable & Toxic
Label	Flammable aerosol
ICAO/IATA Code	
ICAO/IATA Code	None
Class	3
Packing Group:	None
Packaging instructions	Passenger 75 kg Cargo 150 kg

15. REGULATORY INFORMATION

EEC Hazard class: National legislation OHSact and Regulations 85 of 1993	
SANS 10228:2012 Edition 6	The identification and classification of dangerous goods for transport by road and rail modes
SANS 10234:2019 Edition 2	Globally Harmonized System of classification and labelling of chemicals (GHS)
SUPPLEMENT TO SANS 10234 Edition 1	List of classification and labelling of chemicals in accordance with the Globally Harmonized System (GHS)

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SABS 0238 (SANS 1238)	Welding and Thermal Cutting Process
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16. OTHER INFORMATION

Ensure all national/local regulations are observed.
Ensure users and relevant persons understand the hazard
Regularly check supplier's information sources for updated versions of SDS's

Revision Date	31/08/2023 v01
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Bibliography

Perry Chemical Engineering 6th Edition
SANS 11014 - Safety data sheet for chemical products:
Content and order of sections
SANS 10234 - List of classification and labelling of chemicals
in accordance with the Globally Harmonized System (GHS)
SANS 10265 – Classification and Labelling of Dangerous
Substances

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