

MATERIAL SAFETY DATA SHEET

ARDROX HF-P

DATE: 4 August 2004

1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

Product Name **ARDROX HF-P**
 Chemical Formula Formulated chemical
 Company Identification African Oxygen Limited
 23 Webber Street
 Johannesburg, 2001
 Tel. No: (011) 490-0400
 Fax No: (011) 490-0506

2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name (1) Hydrocarbon

Chemical Family
 CAS No. 8032-32-4
 Concentration (%) 45-60
 EC No. 232-453-7
 Classification Carc. Cat. 1; R45
 Xn; R65

Chemical Name (2) Dearomatized hydrocarbon

Chemical Family
 CAS No. 8008-20-6
 Concentration (%) 25-35
 EC No. 232-366-4
 Classification R10
 Xn; R20
 Xi; R36/R38

UN No.
 ERG No. 126
 Hazchem Warning

3 HAZARDS IDENTIFICATION

Chemical Hazards N/A
 Skin Contact Irritant
 Ingestion

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 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.

Effects and Symptoms:

Inhalation Hazardous in case of inhalation.

Ingestion Hazardous in case of ingestion.

Skin Contact Hazardous in case of skin contact (irritant, permeator). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Aggravating conditions Repeated skin exposure can produce local skin destruction, or dermatitis.

5 FIRE FIGHTING MEASURES

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.

Emergency Actions

Protective Clothing Special Fire-Fighting Procedures Specific Hazards

Be sure to use an approved / certified respirator or equivalent.
 Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
 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.

Hazardous Thermal Decomposition Products.
 Carbon oxides (CO, CO₂) nitrogen oxides (NO, NO₂).

6 ACCIDENTAL RELEASE MEASURES

Personal precautions Splash goggles. Overalls. Boots. Gloves.
Environmental precautions Eliminate all ignition sources. Contain the spillage to prevent entry into drains or waterways.

Spillages Absorb with DRY earth, sand or other non-combustible 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.

7 HANDLING AND STORAGE

Handling 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.

Storage Keep in a cool, well-ventilated place. This product should be stored away from oxidizing agents and foodstuffs. Keep in the original container in an upright position. Use original container.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Ingredient name: Ardrex HF-P:
 ACGIH TLV (United States 2003). Notes:
 Weight averaged theoretically calculated.
 TWA: 200mg/m³ 8 hour(s).

Personal Protection Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using toilet, and at end of the day.
Engineering Control measures Good general ventilation should be sufficient.

Hazards
Respiratory Vapour respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Skin & Body Overalls
Hands Gloves
Eyes Safety glasses

9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DATA

Density	0.85 to 0.87g/cm ³
Vapour Density	>1.0
Colour	Clear dark red
Odour	Characteristic solvent odour
Odour Threshold	>1 ppm
Physical state	Dark red liquid
Boiling Point	100°C
Melting Point	<-10°C
Solubility	Miscible with hydrocarbons and halogenated hydrocarbons. Insoluble in cold water, hot water.
Octanol / water partition coefficient	The product is more soluble in oil.
pH	Not applicable
Flash point	>55°C
Fire Hazards in Presence of various Substances	Highly flammable in presence of open flames and sparks. Flammable in presence of heat, of oxidizing materials, of combustible materials. Slightly flammable to flammable in presence of reducing materials.
Auto-ignition temperature	The lowest known value is 229°C (444.2°F) (Kerosene).
Explosive properties	Not applicable.
Lower explosion Limit	LEL = 0.6%. UEL = 7.0%.

10 STABILITY AND REACTIVITY

Stability	The product is stable.
Conditions to avoid	No additional remark.
Incompatible Materials	Reactive with oxidizing agents, acids, alkalis.
Hazardous Decomposition Products	Carbon oxides (CO, CO ₂) nitrogen oxides (NO, NO ₂).

11 TOXICOLOGICAL INFORMATION

Acute Toxicity	Acute oral toxicity (LD50): >2400mg/kg (Rat – Weighted average theoretically calculated). Acute dermal toxicity (LD50): >2000mg/kg (Rat). (KEROSENE, deaeromatized). Acute toxicity of the vapour (LC50): 5000mg/m ³ 4 hours (Rat). (KEROSENE, deaeromatized).
Skin	Hazardous in case of skin contact (irritant).
Chronic Toxicity	Repeated skin exposure can produce local skin destruction, or dermatitis.
Carcinogenicity	Classified 2A (Probable for human) by IARC (Kerosene).
Mutagenicity	
Reproductive Hazards	
Teratogenic	

12 ECOLOGICAL INFORMATION

Persistence / Degradability	Expected to be slowly bio-degradable. Possibly hazardous short-term degradation products are not likely. Products of bio-degradation: Oxidises rapidly by photochemical reactions in air.
Ecotoxicity	Harmful to aquatic life in high concentrations.

13 DISPOSAL CONSIDERATIONS

Disposal Methods	Prevent entry into waterways, sewers and confined areas: dike if necessary. Product must be removed by a reputable waste disposal company. Aerosol cans (used or unused) should be disposed of, without puncturing, via a licensed waste disposal contractor.
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Disposal of packaging	DO NOT RE-USE CONTAINERS. Puncture all plastic containers. Flatten all metal containers. Shred all polywoven bags.
Hazardous Waste	The classification of the product may meet the criteria for a hazardous waste.

14 TRANSPORT INFORMATION

ROAD TRANSPORTATION

UN No.	1993 – Liquid. 1950 – Aerosols.
ERG No	
Hazchem warning	
ADR/RID Class	Flammable liquid with a flash point between 21°C (70°F) and 100°C (212°F).
Packaging Group	11
Label	Flammable
Proper Shipping Name	FLAMMABLE LIQUIDS, N.O.S. (Petroleum ether, KEROSENE, deaeromatized)

SEA TRANSPORTATION

UN No.	1993 – Liquid. 1950 – Aerosols.
IMDG	
Class	3
Packaging group	11
Label	Flammable
Proper Shipping Name	FLAMMABLE LIQUIDS, N.O.S. (Petroleum ether, KEROSENE, deaeromatized)

AIR TRANSPORTATION

UN No.	1993 – Liquid. 1950 – Aerosols.
ICAO/IATA Code	
Class	3 : Flammable Liquid
Packaging group	11
Label	Flammable
Proper shipping Name	FLAMMABLE LIQUIDS, N.O.S. (Petroleum ether, KEROSENE, deaeromatized)

15 REGULATORY INFORMATION

EEC Hazard class	Irritant.
Risk phrases	R38 - Irritating to skin.
Safety phrases	S16 – Keep away from sources of ignition – No smoking. S20/S21 – When using do not eat, drink or smoke. S23 – Do not breathe vapour. S24/S25 – Avoid contact with skin and eyes. S36/S37/S39 – Wear suitable protective clothing, gloves and eye / face protection. S51 – Use only in well-ventilated areas.
Product Use	Classification and labelling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments and the intended use.
National Legislation:	None

16 OTHER INFORMATION

Other Special Considerations:	No known data.
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17 EXCLUSION OF LIABILITY

Information contained in this publication is accurate at the date of publication. The company does not accept liability arising from the use of this information, or the use, application, adaptation or process of any products described herein.



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For product and safety enquiries please phone **EMERGENCY N°: 0860020202 (24 hr)**