

# Material Safety Data Sheet

Abbreviations used on this Material Safety Data Sheet:  
 n/av. = not available      n/ap. = not applicable      ppm = parts per million      TLV= Threshold Limit Value  
 NFPA Hazard Rating:    4 = Extreme      3 = High      2 = Moderate      1 = Slight      0 = None      X = blank

WHMIS HAZARD:      NFPA HAZARD RATING:  
 B-3, D-1B      HEALTH - 2, FLAMMABILITY - 2, REACTIVITY - 0

## SECTION 1 - PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER		Petrolabs H.U.M. Out Biocide	
PRODUCT USE			
Fuel biocide for controlling the growth of bacteria and fungi in hydrocarbon liquids. This product must not be used on any food or field crop or to formulate any product for use on any food or field crop. NOT FOR USE IN AVIATION FUELS.			
MANUFACTURER NAME		SUPPLIER NAME	
Fuel Power Marketing		ADP Distributors	
STREET ADDRESS		STREET ADDRESS	
4521 Saratoga Ave.		18940 94 <sup>th</sup> Avenue	
CITY	STATE	CITY	BC
San Diego	CA	Surrey	Canada
ZIP CODE	TELEPHONE NUMBER	POSTAL CODE	TELEPHONE NUMBER
92107	(619) 223-0351	V4N 4X5	

## SECTION 2 - COMPOSITION

HAZARDOUS INGREDIENTS	CONCENTRATION	CAS NUMBER	LETHAL DOSE (50%) OF INGREDIENT (SPECIFY SPECIES AND ROUTE)	LETHAL CONCENTRATION (50%) OF INGREDIENT (SPECIFY SPECIES AND ROUTE)
Disodium ethylenebis (dithiocarbamate) (Nabam)	15	142-59-6	395 mg/kg (rat, oral)	n/av
Sodium dimethyldithiocarbamate	15	128-04-1	n/av	n/av
Ethylene thiourea	<1	96-45-7	n/av	n/av
ethylenediamine	<0.75	107-15-3	500 mg/kg (rat, oral)	300 mg/m <sup>3</sup> (mouse, inhalation)
dimethylamine	<0.75	124-40-3	698 mg/kg (rat, oral)	4700 ppm/4hhour (rat, inhalation)

## SECTION 3 - PHYSICAL DATA

PHYSICAL STATE	Liquid	ODOR AND APPEARANCE	Yellow-green solution with sulfur odor.		ODOR THRESHOLD	n/av		
VAPOR PRESSURE	n/av	VAPOR DENSITY	<1	EVAPORATION RATE	approximately 1	BOILING POINT	>100c	
pH	10.5 to 12.4	SPECIFIC GRAVITY	1.176@20c	COEFFICIENT OF MATERIAL DISTRIBUTION	totally soluble in water		FREEZING POINT	0 c

## SECTION 4 - FIRE AND EXPLOSION DATA

FLAMMABILITY IF YES, UNDER WHICH CONDITIONS?			
YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			
METHOD OF EXTINCTION			
Use means applicable to surrounding fire, such as carbon dioxide, dry chemical powder, foam, or water spray.			
SPECIAL PROCEDURES			
Fire fighters must wear self contained breathing apparatus and full protective gear. Extreme heat may result in release of toxic gases.			
FLASHPOINT AND METHOD	n/ap	UPPER FLAMMABILITY LIMIT	n/ap
		LOWER FLAMMABILITY LIMIT (% BY VOLUME)	n/ap
AUTOIGNITION TEMPERATURE	n/av	HAZARDOUS COMBUSTION PRODUCTS	Oxides of carbon, nitrogen and sulfur.
EXPLOSION DATA	Not sensitive to impact.		
SENSITIVITY TO IMPACT	SENSITIVITY TO STATIC DISCHARGE		
	Not sensitive to static charge.		

## SECTION 5 - REACTIVITY DATA

CHEMICAL STABILITY. IF NO, UNDER WHICH CONDITIONS?	
YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Normally stable to moderate heat, sunlight and air.	
INCOMPATIBILITY WITH OTHER SURFACES. IF YES, WHICH ONES?	
YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Avoid contact with mineral acids such as nitric, sulfuric, or hydrochloric acid.	
FLAMMABILITY IF YES, UNDER WHICH CONDITIONS?	
Acidification can release flammable gases. Thermal decomposition may release gases such as amines and carbon disulfide.	
HAZARDOUS DECOMPOSITION PRODUCTS	
Oxides of carbon, nitrogen and sulfur. Amines. Carbon disulfide.	



PRODUCT IDENTIFIER **Petrolabs H.U.M. Out Biocide**

**SECTION 6 – TOXICOLOGICAL PROPERTIES**

ROUTE OF ENTRY SKIN CONTACT  SKIN ABSORPTIONS  EYE CONTACT  INHALATION  INGESTION

EFFECTS OF ACUTE EXPOSURE TO PRODUCT  
**Causes eye and skin irritation. Vapors may be irritating to the nose, throat and respiratory tract. Symptoms of overexposure can include headache, drowsiness, dizziness, nausea, loss of coordination, and fatigue. Toxic – may be harmful if swallowed.**

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT  
**Prolonged or repeated skin contact can cause dermatitis. Sensitized persons may experience dermatitis after single exposure. Prolonged or repeated inhalation may cause headaches, irritability, and depression. Sensitized persons may experience symptoms of cold, flu, mild hay fever or bronchial asthma.**

EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITIZATION TO PRODUCT	CARCINOGENICITY
ACGIH TLV-TWA=5 ppm for Dimethylamine. ACGIH-TLV=10 ppm for ethylenediamine. OSHA PEL 8-hrTWA =10ppm for ethylenediamine and dimethylamine.	Eye, skin and respiratory tract.	May cause skin sensitization reactions in some people.	Ethylene thiourea has been identified as a carcinogen by NTP and IARC and is known to the State of California to cause cancer.
TERATOGENICITY	REPRODUCTIVE TOXICITY	MUTAGENICITY	SYNERGISTIC PRODUCTS
Ethylenethiourea has caused birth defects in laboratory animals.	Ethylene thiourea, carbon disulfide, disodium ethylenebisdithiocarbamate, and sodium dimethyldithiocarbamate are know to the State of California to cause birth defects or other reproductive harm.	Not identified.	None identified.

**SECTION 7 – PREVENTIVE MEASURES**

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES (SPECIFY) <b>Chemical resistant. Rubber is recommended.</b>	RESPIRATOR (SPECIFY) <b>None required where adequate ventilation exists. If airborne concentration is high, use NIOSH-approved Supplied Air Respirator (SAR) or Self Contained Breathing Apparatus (SCBA).</b>	EYE (SPECIFY) <b>Use safety glasses with side shields. For splash protection use chemical goggles and face shield.</b>
FOOTWEAR (SPECIFY) <b>Impervious boots.</b>	CLOTHING (SPECIFY) <b>Chemical resistant apron or coveralls.</b>	OTHER (SPECIFY)

ENGINEERING CONTROLS (SPECIFY VENTILATION, ENCLOSED PROCESS)

**Use of combination of local exhaust and dilution ventilation to keep exposure as low as possible.**

LEAK AND SPILL PROCEDURE

**Wear appropriate personal protective equipment. Contain spill with dikes and absorbent materials. Collect in suitable closed container. The spill area may be very slippery. Do not discharge spilled material into surface water bodies and ground water.**

WASTE DISPOSAL

**Follow all local, provincial, and national regulations.**

HANDLING PROCEDURES AND EQUIPMENT

**Read and follow all label directions carefully. Wear appropriate personal protective equipment. Follow normal hygienic practices for handling chemicals. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.**

STORAGE REQUIREMENTS

**Store in a cool, dry place away from all incompatible materials. Keep container tightly closed when not in use. Keep away from children.**

SPECIAL SHIPPING INFORMATION

**Consumer Commodity exemption may apply. See TDG Regulations.**

TDG. UN NUMBER

n/ap

**SECTION 8 – FIRST AID MEASURES**

SPECIFIC MEASURES

**SKIN CONTACT:** Remove contaminated clothing. Wash thoroughly with soap and water for 15 minutes. Launder clothing before reuse. Seek medical attention if irritation occurs..

**EYE CONTACT:** Flush eyes with running water for 20 minutes while retracting eyelids. If irritation or adverse symptoms develop, seek medical attention.

**INGESTION:** Do not induce vomiting. If victim is conscious, have them drink copious amounts of water to dilute ingested material. Never give anything by mouth to an unconscious or convulsing person. Seek medical attention immediately.

**INHALATION:** Remove victim to fresh air. Use artificial respiration if victim has stopped breathing. Seek immediate medical attention..

**SECTION 9 – PREPARATION DATE OF MSDS**

PREPARED BY

Kel-Ex Agencies Ltd

PHONE NUMBER

Kel-Ex Agencies, Ltd. (604) 986-4617 (O), 987-1089 (F)

DATE

July 5, 2010