



MATERIAL SAFETY DATA SHEET

Supplier:	ValvTest Petroleum Products A Division of Kop-Coat, Inc. 3400 Dundee Road Northbrook, IL 60062	EMERGENCIES: Health/spills:..... Chemtrec Assistance..... Chemtrec Outside USA.....	800-548-0489 800-424-9300 703-527-3887
		ValvTest Petroleum Products Product Information..... Outside USA.....	847-272-2278 847-272-2278

1. Product Information

Product name	ValvTest Marine Premium Diesel Additive with BioGuard Microbiocide
Product code	VMDABK2

Issuing date: 03/06/2012

Contact person:

Environmental Health and Safety
Manager

2. Hazards identification

Emergency Overview

Appearance: Yellow liquid

Odor: Hydrocarbon

Hazards: WARNING!

Harmful if swallowed or inhaled. Causes eye, nose and throat irritation. May cause allergic skin reaction.

Potential health effects

Primary Routes of Entry: Eye contact, ingestion, skin contact, inhalation, and absorption.

Eye contact:

May cause eye irritation. Symptoms may include stinging, tearing, and redness of eyes.

Ingestion:

Harmful if swallowed. May cause gastrointestinal distress. Symptoms may include irritation to the mouth, throat and stomach and gastrointestinal disturbances such as nausea, vomiting or diarrhea. Aspiration of this product into the lungs during ingestion, gagging or vomiting may cause lung damage, which can be fatal.

Skin contact:

May cause moderate skin irritation. Symptoms may include dryness, itching, burning sensation, redness, cracking and swelling depending on the extent of exposure. May be harmful if absorbed through the skin in toxic amounts and cause

systemic effects. May cause allergic skin reactions in susceptible individuals, which becomes evident upon reexposure to this material.

Inhalation:

May cause irritation to the nose, throat and respiratory tract. Inhalation of high concentrations of vapors may cause respiratory tract irritation and central nervous system depression. Symptoms may include headache, nausea, dizziness and drowsiness. Continued inhalation may result in unconsciousness or death.

Chronic effects:

Prolonged or repeated dermal exposure to this product can cause skin dermatitis characterized by red, dry, scaly skin. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Target Organs: Not Determined

This product does not contain carcinogens or potential carcinogens as listed by IARC or NTP.

3. Composition/information on ingredients

Chemical Name	CAS-No.	Weight %	Carc
Petroleum distillates, hydrotreated light	64742-47-8	30 - 50	
4-(2-Nitrobutyl) morpholine	2224-44-4	20 - 30	
2-Ethylhexyl nitrate	27247-96-7	10 - 20	
Amines, polyethylenepoly	Proprietary	1 - 10	
1,2,4-Trimethylbenzene	95-63-6	1 - 10	
Methylene Dimorpholine	5625-90-1	1 - 10	
Morpholine	110-91-8	1 - 10	
4,4'-(2-Ethyl-2-Nitropropane-1,3-diyl)bismorpholine	1854-23-5	1 - 10	
Petroleum distillates, light aromatic	64742-95-6	1 - 10	

4. FIRST AID MEASURES

Eye contact:

Quickly and gently blot or brush chemical off the face. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into unaffected eye or onto the face. Call poison control center, hospital emergency room, or physician immediately.

Ingestion:

NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 2 to 8 oz. (60 to 240 mL) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Immediately obtain medical advice.

Skin contact:

As quickly as possible, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Immediately wash with lukewarm, gently flowing water and non-abrasive soap for 15-20 minutes. Immediately obtain medical advice. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Inhalation:

Remove to fresh air. If not breathing, administer CPR until help arrives or the victim starts to breathe on his own. If breathing is difficult, give oxygen. Call poison control center, hospital emergency room, or physician immediately. Keep victim quiet and warm until emergency help arrives.

Note to Physician :

There is no specific antidote for effects from overexposure to this material. Treatment should be directed at the control of symptoms

and the clinical condition.

5. FIRE-FIGHTING MEASURES

Flash point 110 deg F / 43 deg C

Extinguishing media:

Use alcohol foam, dry chemical, carbon dioxide or any Class B fire extinguishing agent. Water may be unsuitable for extinguishing fires. Water may be used to cool and prevent the rupture of containers that are exposed to the heat from a fire.

Hazardous combustion products:

See Section 10 for potential decomposition products.

Protective equipment and precautions for firefighters:

Evacuate all persons from the fire area to a safe location. Move non-burning material, as feasible, to a safe location as soon as possible. Fire fighters should be protected from potential explosion hazards while extinguishing the fire. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Thoroughly decontaminate all protective equipment after use. Containers of this material may build up pressure if exposed to heat (fire). Use water spray to cool fire-exposed containers. Use water spray to disperse vapors if a spill or leak has not ignited. Product may undergo a self-accelerating exothermic reaction if heated above 212°F. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

6. ACCIDENTAL RELEASE MEASURES

Personal & Environmental Precautions:

Remove sources of ignition immediately. Stop flow of material if safe to do so. Contain spill and keep out of water courses. Ventilate area. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal using non-sparking tools. Follow personal protective equipment recommendations found in Section 8. Personal protection needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the training and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods of Containment & Clean-up and Other Information:

This product, if released in large enough quantities, may need to be reported to the US Coast Guard National Response Center at 1-800-424-8802. Contain spills with dikes and absorbents (sand, earth, dry chemical absorbent) to prevent migration and entry into waterways.

7. HANDLING AND STORAGE

Handling:

Keep container closed and upright when not in use. To prevent generation of static discharges, use bonding/grounding connection when transferring material. Vapors may accumulate and travel to distant ignition sources and flashback. Extinguish all sources of ignition including pilot lights, non-explosion proof motors and electrical equipment until vapors dissipate. Since empty containers may retain product residue and flammable vapors, observe precautions even after container is emptied. Do not cut, puncture, or weld on or near empty containers. Do not smoke where product is used or stored. Avoid contact with eyes, skin or clothing. Avoid inhalation (vapor, mist, dust or fume, as applicable). Use only with adequate ventilation. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling.

Storage:

Store in areas/buildings designed to comply with OSHA 1910.106. Store away from sources of ignition and heat. Keep containers closed when not in use. Store in cool, well ventilated space away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name
Petroleum distillates, hydrotreated light

CAS-No.
64742-47-8

Z-1 PEL

Z-2 PEL

ACGIH TLV

4-(2-Nitrobutyl) morpholine	2224-44-4	70 MGM3 (20 PPM)	20 PPM
2-Ethylhexyl nitrate	27247-96-7		
Amines, polyethylenepoly	Proprietary		
1,2,4-Trimethylbenzene	95-63-6		25 PPM
Methylene Dimorpholine	5625-90-1	70 MGM3 (20 PPM)	20 PPM
Morpholine	110-91-8	70 MGM3 (20 PPM)	20 PPM
4,4'-(2-Ethyl-2-Nitropropane-1,3-diyl) bismorpholine	1854-23-5	435 MGM3 (100 PPM)	100 PPM
Petroleum distillates, light aromatic	64742-95-6		

Engineering measures:

Use adequate ventilation to maintain airborne concentrations at levels below permissible or recommended occupational exposure limits. Supplementary local exhaust ventilation may be necessary in poorly ventilated spaces, during spraying, heating or other non-routine activities.

Eye/face protection:

Wear chemical-resistant glasses and/or goggles and a face shield when eye and face contact is possible due to splashing or spraying of material.

Skin protection:

Chemical-resistant, flexible-type gloves (Viton(R), neoprene, nitrile or equal) to prevent contact. Gloves should be rinsed and removed immediately after use. Wash hands after removing gloves. Wear chemical-resistant clothing (e.g. apron, pants, coveralls) and safety footwear as appropriate.

Respiratory protection:

Respiratory protection may be necessary under certain use conditions. Under such conditions, an appropriate, properly fitted NIOSH-approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with 29 CFR 1910.34 and 42 CFR 84.

General hygiene considerations:

Facilities utilizing this material should be equipped with an eyewash station and safety shower. Thoroughly clean shoes and wash contaminated clothes before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Appearance:	Yellow liquid
Odor	Hydrocarbon
pH	Not applicable.
Boiling point	not determined
Flash point	110 deg F / 43 deg C
Solubility in water:	Insoluble
Specific Gravity:	0.89
Weight per gallon (LB/GAL) :	7.46
Evaporation rate (n-Butyl acetate = 1):	not determined
Volatile by Weight (including water and exempt compounds) (%):	not determined
Volatile Organic Content (VOC):	not determined

10. STABILITY AND REACTIVITY

Stability:

Stable under normal conditions. 2-Ethylhexyl nitrate is unstable at temperatures greater than 100°C (212°F).

Incompatibility:

Oxidizing and reducing agents. Acids.

Hazardous decomposition products:

Carbon monoxide, carbon dioxide, oxides of nitrogen and other toxic organic compounds.

11. TOXICOLOGICAL INFORMATION

2-Ethylhexyl nitrate (CAS# 27247-96-7) has been found to cause damage to the cardiovascular system.

12. ECOLOGICAL INFORMATION

This material is toxic to fish. Do not contaminate water by cleaning equipment or disposal of waste. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. For guidance, contact your Regional Office of the Environmental Protection Agency. This product contains components (2-ethylhexyl nitrate) which may be persistent in the environment.

13. DISPOSAL CONSIDERATIONS

Waste from this material may be a listed and/or characteristic hazardous waste. Dispose of material, contaminated absorbent, container and unused contents in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

Transportation:	This product is not regulated by the U.S. DOT when shipped by ground in containers < 119 gallons.
By Ground:	
DOT Hazard Class:	3
DOT Proper Shipping Name:	Combustible liquid, n.o.s. (petroleum distillates, 1,2,4-trimethylbenzene) for containers > 119 gal.
DOT Packing Group:	III
DOT UN Number:	NA1993
By Air:	
IATA Hazard Class:	3
IATA Proper Shipping Name:	Flammable liquid, n.o.s. (petroleum distillates, 1,2,4-trimethylbenzene)
IATA Packing Group:	III

IATA UN Number: UN1993

By Sea:

IMDG Hazard Class: 3

IMDG Proper Shipping Name: Flammable liquid, n.o.s. (petroleum distillates, 1,2,4-trimethylbenzene)
Marine pollutant

IMDG Packing Group: III

IMDG UN Number: UN1993

15. REGULATORY INFORMATION

EPA registration number: 60061-128

Pest Registration Act number: Not applicable.

Other:

Ultra Low Sulfur Additives: The sulfur content of this Diesel Fuel Additive does not exceed 15 parts per million (ppm). References: Code of Federal Regulations Title 40 Part 80, EPA 2006 Regulation of Fuels and Fuel Additives, EPA Document # EPA40-F-05-013.

Chemical Name	CAS-No.	TSCA 12B	SARA 313	TSCA	DSL	EINECS	Prop 65	Whmis
Petroleum distillates, hydrotreated light	64742-47-8			*	*			
4-(2-Nitrobutyl) morpholine	2224-44-4			*	*	*		
2-Ethylhexyl nitrate	27247-96-7			*	*	*		
Amines, polyethylenepoly	Proprietary			*	*			
1,2,4-Trimethylbenzene	95-63-6		*	*	*	*		*
Methylene Dimorpholine	5625-90-1			*	*	*		
Morpholine	110-91-8			*	*	*		
4,4'-(2-Ethyl-2-Nitropropane-1,3-diyl) bismorpholine	1854-23-5			*	*	*	*	*
Petroleum distillates, light aromatic	64742-95-6			*	*	*		*

16. OTHER INFORMATION

HMIS Health: 2* **HMIS Flammability: 2** **HMIS Physical Hazard: 1**

NFPA Health: 2 **NFPA Flammability: 2** **NFPA Instability/Reactivity: 1**

NOTICE: This document is generated for the purpose of distributing health, safety, and environmental data. The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed, or implied, regarding correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. Kop-Coat makes no warranty with respect thereto and disclaims all liability from reliance thereon.

Key:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Registry Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLA RQ	CERCLA Reportable Quantity
CFR	Code of Federal Regulations
CPR	Cardiopulmonary resuscitation
DSL	Domestic Substances List of Canada
EINECS	European Inventory of Existing Chemical Substances

EPCRA	Emergency Planning and Community Right-to-know Act
EPCRA EHS	EPCRA Extremely Hazardous Substance
EPCRA TPQ	EPCRA Threshold Planning Quantity
oF	Fahrenheit degrees
g/l	Grams per liter
gal	Gallons
Group A3	Carcinogen Category - Confirmed Animal Carcinogen with Unknown Relevance to Humans
Group A4	Carcinogen Category - Not Classifiable as a Human Carcinogen
HMIS	Hazardous Materials Identification System - Chemical Rating
IARC	International Agency for Research on Cancer
lbs or LBS	Pounds
MGM3	Milligrams per cubic meter
MIR	Maximum Incremental Reactivity
MSDS	Material Safety Data Sheet
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PPM	Parts per million
Proposition 65	California's Safe Drinking Water and Toxic Enforcement Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
VOL	Volume
WT	Weight
WHMIS	Canadian Workplace Hazardous Materials Information System
UN	United Nations

ANSI KC 1.74