

## 1. Product and Company Identification

[www.rxmarine.com](http://www.rxmarine.com)

Product Name Vanadium Inhibitor Carboxylate  
Part Number RXSOL-81-1770-240

Company Details:  
RX MARINE INTERNATIONAL  
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## 2. Composition / Information on ingredients

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Name of Substance	Cas Number	Weight %
Magnesium Oxide	1309-48-4	30 - 60
Magnesium Carboxylates Blend	Trade secret.	10 - 30
Hydrotreated Naphthenic Distillates	64742-52-5	10 - 30
Heavy Aromatic Naphtha	64742-94-5	10 - 30
Asphalt	8052-42-4	1 - 5
Naphthalene	91-20-3	1 - 5

## 3. Hazards Identification

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Physical State	Liquid
Odour	Aromatic Hydrocarbon
Colour	Dark Brown
OSHA/HCS status	This material is considered hazardous by the OSHA (29 CFR 1910.1200).
Emergency overview	Warning. COMBUSTIBLE LIQUID AND VAPOR. INHALATION MAY CAUSE DROWSINESS AND NAUSEA AND MAY IRRITATE THE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CAN ENTER LUNGS AND CAUSE DAMAGE TO LUNGS. TARGET ORGAN DAMAGE, BASED ON A SHORT-TERM STUDY. CONTAINS MATERIAL WHICH MAY CAUSE IRRITATION.

## 4. First Aid Measures

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Eye Contact	Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Seek medical attention immediately.

Inhalation:	Move exposed person to fresh air. If not breathing, provide artificial respiration or oxygen by trained personnel. Remove contaminated clothing or waistband. Get medical attention immediately.
Ingestion	Wash out mouth with water. Do not induce vomiting. Get medical attention immediately. Do not give anything by mouth to an unconscious person. Never give anything by mouth to an unconscious person.
Protection of first-aiders	No action shall be taken involving any personal or protective equipment if it is not required by the hazard identification or classification. If the product is still present, the rescuer should wear an appropriate protective equipment. Avoid contact with skin, eyes, or clothing. If necessary, remove contaminated clothing and gloves. Remove contaminated clothing and gloves. Remove contaminated clothing and gloves.
Additional information	If product is ingested and vomiting occurs, do not induce vomiting. Get medical attention immediately. If product is inhaled, move exposed person to fresh air. If not breathing, provide artificial respiration or oxygen by trained personnel. Remove contaminated clothing or waistband. Get medical attention immediately.

## 5. Fire-fighting Measures

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Flammability of the Product	Combustible liquid. In a fire or if heated, a pressure increase may occur, posing the risk of a subsequent explosion. The vapor/gas may be ignited by hot surfaces. Vapors may accumulate in low or confined areas and flash back.
Suitable extinguishing media	Use dry chemical, CO2, water spray (fog) or foam
Unsuitable extinguishing media	Do not use a solid water stream or jet
Hazardous thermal decomposition products	Carbon Dioxide, Carbon monoxide, metal Oxide/oxydes
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode

## 6. Accidental Release Measures

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Personal Protection	<p>No action shall be taken involving any personal or protective equipment if it has been determined that the hazard cannot be eliminated by other means.</p> <p>Keep unnecessary and unprotected personnel from exposure.</p> <p>Shut off all ignition sources. No flares, smoking, or open flames.</p> <p>Provide adequate ventilation. Wear appropriate respiratory protection.</p> <p>Wear appropriate personal protective equipment (see Section 8).</p>
Environmental precautions	<p>Avoid dispersal of spilled material and runoff and other sources of release to the environment. Wash spilled material into containment system if available or into sewer system if permitted by the local, state, and federal government authorities.</p>
Small spill	<p>Stop leak if without risk. Move containers from fire area if done without risk.</p> <p>Use tools and explosion-proof equipment. Dispose of via a licensed hazardous waste contractor.</p>
Large spill	<p>Stop leak if without risk. Move containers from fire area if done without risk.</p> <p>Prevent further leakage or spillage and do not allow product to reach sewerage system or water courses.</p> <p>Notify local authorities. (See section 12 for environmental release procedures.)</p> <p>Contain spillage with noncombustible, absorbent material.</p> <p>Place in container for disposal according to local regulations.</p> <p>Dispose of via a licensed hazardous waste contractor.</p> <p>Do not use explosion-proof equipment. Dispose of via a licensed hazardous waste contractor.</p> <p>Material may pose the same hazard as the spilled material.</p> <p>See section 12 for environmental information and section 13 for waste disposal.</p>

## 7. Handling and Storage

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Handling	Put on appropriate personal protective equipment (PPE) as required by the manufacturer. Do not eat, drink or smoke in areas where this material is handled, stored or used. Wash face before eating, drinking and smoking. Do not get
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Storage

Hygiene measures

or mist. Do not ingest. Use only with adequate ventilation. Do not use near flame or any other ignition source. Use explosion-proof (ATEX or IEC handling) equipment. Use non-sparking tools. Avoid static discharges. To avoid fire or explosion, dissipate static electricity by bonding containers and equipment before transfer and grounding. This product and can be hazardous. Do not reuse container.

Store in accordance with local regulations. Store in a cool, dry and well-ventilated area, away from incompatible materials and sources. Separate from oxidizing materials. Keep away from heat. Containers that have been opened must be carefully sealed and should be stored in unlabeled containers. Use appropriate containment procedures. Immediately change contaminated clothing. Apply first aid measures when working with substance.

8. Exposure controls and personal protection

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Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling
		ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	
Ingredients:	List name							
	Magnesium oxide							
	USACGIH	--	10	--	--	--	--	--
	OSHA PEL	--	15	--	--	--	--	--
Hydrotreated naphthenic distillates	OSHA PEL 1989	--	10	--	--	--	--	--
	USACGIH	--	5	--	--	--	--	--
	OSHA PEL	--	5	--	--	--	--	--
	USACGIH	--	0.5	--	--	--	--	--
Asphalt, as benzene soluble aerosol	USACGIH	10	52	--	15	79	--	--
	OSHA PEL	10	50	--	--	--	--	--
	OSHA PEL 1989	10	50	--	18	75	--	--
Naphthalene								

Form

Recommended monitoring procedures

Engineering measures

Hygiene measures

Personal protection

Respiratory

Hands

Eyes

[a]Inhalable fraction [b]Total particulates [c]Inhalable particulate. Mass TLVs (IPM) TLVs) for those not in the respiratory tract.

Consult local authorities for acceptable exposure levels. Only components of this product with established OSHA permissible exposure levels are shown. If OSHA permissible exposure levels are shown, subsequent OSHA regulatory actions. Although the results of Appeals, Baker Hughes recommends that these levels be used for protection.

If this product contains ingredients with exposure limits, monitoring may be required to determine the effectiveness and/or the necessity to use respiratory protective equipment.

Use only with adequate ventilation. Use process enclosure controls to keep worker exposure to airborne contaminants as low as possible. Use explosion-proof ventilation equipment.

Wash hands, forearms and face thoroughly after working using the lavatory and at the end of the working shift. If you are close to the workstation location. Take off contaminated clothing.

If a risk assessment indicates it is necessary, use respiratory protection complying with an approved standard. Respiratory protection exposure levels, the hazards of the product and the concentration of the substance.

Chemical-resistant gloves: Nitrile or Neoprene gloves.

Wear chemical safety goggles. When transferring



Gloves Suit

## 9. Physical and chemical properties

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Physical state	Liquid
Flash point	Closed cup: 67.2°C (153°F) [SFCC]
Auto-ignition temperature	Not available.
Flammable limits	Not available
Color	Brown. [Dark]
Odor	Brown. [Dark]
pH	9.4
	5% of product in 75% water / 25% isopropanol solution
Boiling/condensation point	Not available.
Initial Boiling Point	: 178°C (352.4°F)
Melting/freezing point	Not available
Relative density	1.31 (15.6°C)
Density	10.91 (lbs/gal)
Vapor density	>1 [Air = 1]
Odor threshold	Not available.
Evaporation rate	Not available
VOC	301 g/l
Viscosity	Dynamic (15.6°C): 64 cP
Solubility (Water)	Insoluble
Vapor pressure	Not available
Pour Point	-42.8°C (-45°F)
Partition coefficient : (LogKow)	Not available.

## 10. Stability and reactivity

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Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous Polymerization	Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11. Toxicological information

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Product/ingredient name	Carcinogenicity		Classification		
	ACGIH	IARC	EPA	NIOSH	
Magnesium oxide	A4	-	-	-	
Hydrotreated naphthenic distillates	A4	-	-	-	
Asphalt	A4	3	-	+	
Naphthalene	A4	2B	-	-	

Magnesium oxide

Magnesium carboxylates

Hydrotreated naphthenic distillates

Heavy aromatic naphtha

Asphalt

Naphthalene

### Chronic toxicity Remarks

Magnesium oxide is a component of this product. No adverse effects were observed at the maximum effect level with chronic exposures up to 1200 mg/kg (Pazynic, et al, 1984).

Not available.

Distillates, petroleum, hydrotreated heavy naphtha. In a 2-year study, rats developed tumors at the site of application. The results are classified as Animal Inadequate Evidence.

Not available.

Asphalt is a component of this product. Chronic exposure to asphalt has been associated with several types of cancer. Several investigators have suggested that repeated exposure to asphalt increases the risk for various types neoplasms (rapid abnormal cell growth) (NTP TR-500). (1988; Hansen, 1989; Austin et al, 1987).

Asphalt has shown some genetic and tumorigenic effects. In a study, rats at 600 mg/Kg produced DNA adducts (cell type). An intramuscular dose of 5400 mg/Kg/24 weeks in mice produced neoplastic tumors. Application of asphalt to the skin of mice 2 weeks intermittent produced neoplastic tumors (RTECS). There are possible links between asphalt and lung disease (Szalc et al, 1981), and lung cancer (possible mixed exposures with tar or pitch. At present, no significant confounders and have not adequately been drawn about the risk of cancer in humans chronic exposure).

This product contains naphthalene. A National Institute for Environmental Health Sciences (NIEHS) study found evidence to support carcinogenicity of naphthalene in rats on 2-year inhalation studies in which the test animals were exposed to naphthalene. Exposure to naphthalene caused significant increases in tumor incidence (NTP TR-500). The relevance of the rodent findings to humans is questionable.

Naphthalene has caused hemolytic anemia, jaundice, and possible neurotoxicity (Tsykrunov & Yakovleva, 1985), possible neurotoxicity (Baetjer, 1978) in humans.

Increased lung alveolar adenomas were seen in rats after 12 months (ACGIH, 1992).

Naphthalene crosses the placenta leading to maternal and/or fetal oxygen, and/or hemolytic anemia, conditions associated with liver and kidney damage has also been seen with naphthalene.

Peripheral lens opacities occurred in 8 of 21 workers exposed for 5 years, but cataracts have not been reported. The International Agency for Research on Cancer (IARC) has concluded sufficient evidence for carcinogenicity in experimental animals and cancer in exposed humans. Accordingly, IARC has classified

## 12. Ecological information

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	Aquatic ecotoxicity	
Product/ingredient name	Result	Species
Naphthalene	Acute EC50 1.96 mg/L Fresh Water	