



DATASHEET

BIO-SCRUB X

DESCRIPTION:

Highly biodegradable oil-based vapor scrubbing solution. Designed to absorb hydrocarbons such as benzene, toluene, xylene, aromatics, etc. in wet scrubbers or bubble-up type units. Contains no surfactants or perfumes. Contains methyl esters. High flash point. Non-toxic formula. Not for use in cold temperatures. Non-Foaming formula. Incompatible with rubber or like materials and gaskets.

PRODUCT USES & APPLICATIONS

- Vapor Scrubber Systems
- Bubble-Up Systems
- Hydrocarbon Stripping

APPLICATION INSTRUCTIONS

Dilution Rate	Does not dilute with water
Application Methods	For use in scrubber systems only
Special Instructions	None

Scrubbing Instructions: Add BIO-SCRUB X to reservoir and DO NOT dilute with water. Make sure there are no pumps seals which are made from rubber as this product will cause them to swell and fail.

HAZARDOUS INFORMATION

Specific Hazard	Eye and skin irritant
Flash Point (°F)	Above 220°
Biodegradability	Excellent
pH	N/A for oils
Unusual Hazards	Incompatible with rubber
Other Information	Highly biodegradable formula

PACKAGING INFORMATION

Available Quantities	5,30,55,275 and bulk
Packaging Material	Poly
Other Information	Product will freeze at 28°F.

CASE STUDY 7 APPLICATION INFO:

November 12, 2007 Chemical Facility Lake Charles, LA

BIO-SCRUB X was used in a packed column scrubber system that was removing EDC (ethylene dichloride). The customer stated that the scrubber unit with BIO-SCRUB X was removing 70% of the EDC prior to carbon. Previously they were using Carbonil and getting 60% removal of EDC but had issues with foaming.

September 14, 2009 Hitchcock, TX

During testing of BIO-SCRUB X we found that we could absorb 98% of VOC's coming from Vapor Tech's ELIMINATOR Vapor Scrubber Unit. The ELIMINATOR Scrubber System is a brand new, cutting edge liquid absorber which will enable extremely high removal of VOC's without the use of carbon (we always recommend carbon as a safety net). Using gasoline vapors as a base, we had 800 ppm at the inlet of the scrubber (VOC Meter). On the outlet of the scrubber unit we had a reading of 12 ppm. This is a removal of over 98%.

GHS SAFETY DATA SHEET

'BIO SCRUB X'

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name..... BIO SCRUB X
 Synonyms..... V-SCRUB
 Chemical Use..... Scrubbing Agent
 Chemical Family..... Alkyl Esters
 Issue Date of SDS..... May 2, 2014
 Revision Date of SDS..... 1/31/2022

MANUFACTURER:

Vapor Technologies, Inc.
 7200 Williams Street
 Hitchcock, TX 77563
 (409) 316-0173
www.vapor-tech.net

EMERGENCY TELEPHONE NUMBER: (877) 840-0646

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION: NON-HAZARDOUS

<u>Health</u>	<u>Environmental</u>	<u>Physical</u>
Acute Toxicity- Oral: Category 5	None Known	Flammable Liquid Category 4
Skin Corrosion/Irritation: Category 3		
Eye Damage/Irritation: Category 2B		

GHS LABEL:

NO SYMBOL

SIGNAL WORD:

WARNING

Hazard Statements

H227: Combustible Liquid
 H303: May be harmful if swallowed.
 H316: Causes mild skin irritation.
 H320: Causes eye irritation.

Precautionary Statements

P210: Keep away from flames and hot surfaces. - No smoking.
 P264: Wash hands thoroughly after handling.
 P280: Wear protective gloves/eye protection/face protection.
 P305 + P351 + P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312: Call a POISON CENTER/doctor/physician if you feel unwell.
 P332 + P313: If skin irritation occurs: Get medical advice/attention.
 P370 + P378: In case of fire: Use water spray, dry chemical, foam or carbon dioxide.
 P403 + P235: Store in a well-ventilated place. Keep cool.
 P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

	<u>NFPA</u>
Health	1
Flammability	1
Reactivity	0
Special Notice	-

<u>HMIS</u>		
1	Health	0 - Minimal
1	Flammability	1 - Slight
0	Physical Hazard	2 - Moderate
G	PPE	3 - Serious
		4 - Severe
		G - Safety Glasses, Gloves & Vapor Respirator

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS

Mixed Methyl Esters

CAS#

67784-80-9

CONCENTRATION

100%

SECTION 4 - FIRST AID MEASURES

Eye Contact..... Immediately flush eyes with plenty of water. Get medical attention if irritation develops or persists.
 Skin Contact..... Remove contaminated clothing. Wash skin with soap and water. Get medical attention if irritation develops or persists.
 Inhalation..... If exposed to excessive levels of fumes, remove to fresh air. Get medical attention if cough or other symptoms develop.
 Ingestion..... **DO NOT INDUCE VOMITING!** Drink one or two glasses of water and get medical attention immediately!

Suitable Extinguishing Media: Use foam, carbon dioxide, or water spray to extinguish flames.

Unsuitable Extinguishing Media:..... No further relevant information available.

Combustion Products: Carbon Monoxide

Fire Fighting Instructions..... As with any fire, wear sealed contained breathing apparatus, pressure demand MSHA/NIOSH (approved or equivalent) and full protective gear. Water runoff may cause environmental damage. Dike and collect water used to fight fire.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

Personal Precautions:..... Prevent contact with skin and eyes. See Section 8.

Environmental Precautions..... Prevent entry of product into drains, sewers, surface or ground water.

Methods for Cleaning Up:..... Clean up spills immediately. Absorb spill with inert material (e.g., dry sand or earth), then place in a suitable container for disposal.

SECTION 7 - HANDLING AND STORAGE

Handling:..... Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Wear protective gloves, clothing and eye protection when handling this product. Use in well ventilated areas.

Storage..... Avoid contamination by storing in water-free tanks with scheduled water drainage. Corrosion and microbial growth are promoted by the presence of water. Degradation can be avoided by preventing temperature extremes and air during storage. Contact with copper/alloys, lead, tin and zinc may result in increased sediment and deposits that can plug filters.

Shelf-Life..... One to two years normally.

Storage Temperature..... 5 - 43°C (41 - 110°F)

SECTION 8 EXPOSURE CONTROL / PERSONAL PROTECTION

EXPOSURE LIMITS:	Component	ACGIH (TLV)	ACGIH (STEL)	OSHA (PEL)
	Mixed Methyl Esters	Not Known	Not Known	Not Known

Engineering Controls..... Good general ventilation should be sufficient to control airborne levels.

Personal Protective Equipment (PPE):

Eye Protection..... Wear safety-goggles with side shields (or goggles). Contact lenses should not be worn.

Skin Protection..... Wear chemical resistant gloves.

Respiratory Protection..... For most situations, no respiratory protection is necessary. Respirator needed if mist of product is present.

General Hygiene Consideration..... There are no known health hazards associated with this product when used as recommended.

The following general hygiene considerations are recognized as common, good industrial hygiene practices:

- Wash hands after use and before eating.
- Avoid breathing vapors.
- Wear safety glasses and gloves.

Exposure Limits..... Not established for product as whole.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance..... Amber to light brown liquid.

Odor..... Slight solvent odor.

Vapor Pressure..... < 1 mmHg @ 72C

Odor Threshold..... Not Determined.

Vapor density..... Not Determined.

pH..... N/A for Oils.

Relative Density..... Not Determined.

Melting point/Freezing point:..... Not Determined / 35 - 40°F

Solubility in water..... Negligible.

Initial boiling point and range..... 390°F / Not Determined.

Flash Point..... 266°F

Evaporation rate..... > 1

Flammability (solid, gas):..... N/A

Upper/Lower flammability or explosive limits:..... Not Established.

Partition coefficient..... Not Determined.

Auto igniting temperature..... Not Determined.

Decomposition temperature..... Not Determined.

Viscosity..... Not Determined.

Specific Gravity (water = 1)..... 0.88

