

DESCRIPTION:

Enviro-Scrub VT (6% Solution) is a pre-diluted 6% liquid solution (Enviro-Scrub VT) which removes H2S from hydrocarbon liquids, natural gas, gas streams, waste-water streams, and scrubber systems. This product is non-hazardous and reacts immediately to produce a non-reversible, non-hazardous stable compound. The reacted products with H2S typically are amine salts. This product works well in 'Forced-Induction' or packed-column scrubber systems. No mixing or dilution makes this product safer since little personnel interaction is necessary. Simply add to reservoir and start running.

(6% SOLUTION)

PRODUCT USES & APPLICATIONS

- Tank Cleaning
- Municipals
- Waste Water Odor Control
- Remediation
- Vapor Scrubber Systems

APPLICATION INSTRUCTIONS

Dilution Rate Pre-diluted (none necessary)

Reaction Potential Does not interact with carbon dioxide

Additional Instructions: When solution becomes cloudy or opaque it is in need of change-out. Failure to change spent solution could result in particulate and solids which could clog lines. It could also result in low removal ef ciencies since this is an indication the solution is completely spent.

HAZARDOUS INFORMATION

Specific Hazard Eye and skin irritant
Flash Point (°F) Above 220°
Biodegradability Excellent
pH 10-11
Unusual Hazards None
Other Information Freeze point is 30°F

PACKAGING INFORMATION

Available Quantities 5, 30, 55 and bulk quantities
Packaging Material Poly
Other Information Do not let product freeze.

vapor-tech.net

CASE STUDY & APPLICATION INFO:

June 14, 2014: Houston Petrochemical Facility

Enviro-Scrub VT (6% Solution) was used in a packed-column scrubber. This scrubber was hooked to the exhaust of a frac tank which had 250ppm of H2S. The packed-column scrubber offered very little back-pressure and the ef ciency was 99.5%. The customer liked the fact that the operators did not have to dilute the chemical with water. Operator risk was minimized. Spent media was deemed non-haz and sent through the plants' WWTP.

May 15, 2014: West Texas Oilfield Facility

Enviro-Scrub VT (6% Solution) was used in an E550 Vapor Scrubber unit to control H2S from truck emissions. While the trucks were being lled with sour crude, the H2S vapors were routed through the scrubber where the chemical media neutralized the vapor.





GHS SAFETY DATA SHEET 'ENVIRO-SCRUB VT (6% SOLUTION)'

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

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>	
Skin Corrosion/Irritation:	Category 2	None Known	None Known	
Eye Damage/Irritation:	Category 2A			
Acute Toxicity/Oral	Category 4			

GHS LABEL:



SIGNAL WORD: WARNING

GHS07 Irritant

Hazard Statements	Precautionary Statements
H302: Harmful if swallowed.	P264: Wash hands thoroughly after handling.
H315: Causes skin irritation.	P270: Do not eat, drink or smoke when using this product.
H319: Causes serious eye irritation.	P280: Wear protective gloves.
	P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you
	feel unwell.
	P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
	P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes.
	Remove contact lenses, if present and easy to do. Continue rinsing.
	P330: Rinse Mouth.
	P332 + P313: If skin irritation occurs: Get medical advice/attention.
	P362: Take off contaminated clothing and wash before reuse.
	P337 + P313: If eye irritation persists: Get medical advice/attention.

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

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

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

 INGREDIENTS
 CAS#
 CONCENTRATION

 Hexahydro-1,3,5-tris(2-hydroxyethyl)-s-triazine
 4719-04-4
 6%

 2-aminoethanol
 141-43-5
 <1%</td>

SECTION 4 - FIRST AID M	IEASURES	Page	2	ENVIRO-SCRUB VT (6% SOLUTION)
Eye Contact				· · · · · · · · · · · · · · · · · · ·
Skin Contact	Remove contaminat	ed clothing. Wash skin w	vith soap and water. Get	t medical attention if irritation develops or persists.
nhalation	If exposed to excess	ive levels of fumes, remo	ve to fresh air. Get medi	ical attention if cough or other symptoms develop.
ngestion	DO NOT INDUCE VOMITING! Drink one or two glasses of water and get medical attention immediately!			
SECTION 5 - FIREFIGHTIN	IG MEASURES			
Suitable Extinguishing Media:		oxide, or water spray to	extinguish flames.	
Unsuitable Extinguishing Media:	No further relevant	information available.		
Combustion Products:	None.			
Fire Fighting Instructions	As with any fire, we	ar sealed contained breat	hing apparatus, pressure	e demand MSHA/NIOSH (approved or equivalent)
	and full protective g	ear. Water runoff may ca	ause environmental dam	age. Dike and collect water used to fight fire.
SECTION 6 - ACCIDENTA	L RELEASE MEASU	RE		
Personal Precautions:	Prevent contact wit	n skin and eyes. See Sect	ion 8.	
Environmental Precautions	Prevent entry of pro	duct into drains, sewers,	surface or ground water	r.
Methods for Cleaning Up:	Clean up spills imme	ediately. Absorb spill with	n inert material (e.g., dry	sand or earth), then place in a suitable container
	for disposal.			
SECTION 7 - HANDLING	AND STORAGE			
-landling:	Avoid contact with e	eyes, skin and clothing. D	o not eat, drink or smoke	e when using this product. Wear protective gloves,
	clothing and eye pro	tection when handling th	nis product. Use in well v	ventilated areas.
Storage	Store in cool place in	n original container and k	eep away from direct sui	nlight. Keep container closed when not in use.
Shelf-Life				
Storage Temperature	5 - 43°C (41 - 110°F)			
SECTION 8 EXPOSURE CO	-		ACCUL (CTTL)	OCUM (DEL)
EXPOSURE LIMITS:	<u>Component</u> 2-aminoethanol	ACGIH (TLV) STEL 15mg/m3	ACGIH (STEL)	OSHA (PEL)
ngineering ControlsPersonal Protective Equipment (P	PPE):			
Eye Protection			gles). Contact lenses sho	ould not be worn.
Skin Protection		· ·		
Respiratory Protection	= :			
General Hygiene Consideration				
			are recognized as comm	non, good industrial hygiene practices:
		er use and before eating.		
	Avoid breathing Wear safety sleep	•		
Exposure Limits	Wear safety glas Not established for	_		
•	'			
SECTION 9 - PHYSICAL &				
Appearance				
Odor				
Vapor Pressure				
Odor Threshold				
Vapor density				
oH				
Relative Density				
Melting point/Freezing point:	No			
Solubility in water				
and the second second		0%		
Initial boiling point and range	22	0% 3°F / Not Determined.		
Flash Point	22 No	0% 3°F / Not Determined. ne.		
Flash Point Evaporation rate		0% 3°F / Not Determined. ne. t Determined.		
Flash PointEvaporation rateFlammability (solid, gas):		0% 3°F / Not Determined. ne. t Determined. t Flammable.		
Flash Point Evaporation rate Flammability (solid, gas): Upper/Lower flammability or explo		0% 3°F / Not Determined. ne. t Determined. t Flammable. t Established.		
Flash PointEvaporation rateFlammability (solid, gas):		0% 3°F / Not Determined. ne. t Determined. t Flammable. t Established. t Determined.		

Not Known Not Known

Carcinogenicity...... Not a known carcinogen.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No further relevant information available.

Mobility in soil: No further relevant information available.

Degradability: Expected to readily biodegrade.

Bioaccumulation: No further relevant information available.

SECTION 13 - DISPOSAL CONSIDERATION

ENVIRO-SCRUB VT 6% SOLUTION is not considered a hazardous waste under Federal Hazardous Waste Regulations 40 CFR 261. Please be advised, however,

that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local authorities regarding the proper disposal of this material.

(Note: Adding chemicals, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, or or otherwise inappropriate).

SECTION 14 - TRANSPORTATION INFORMATION

SECTION 15 - REGULATORY INFORMATION

<u>A.</u>	USA:	TSCA Status	All ingredients listed on TSCA Inventory.
		SARA TITLE III, 302/303 EHS	None
		SARA TITLE III, 304 HS	None
		SARA TITLE III, 311/312	None
		SARA TITLE III, 313	None
<u>B.</u>	CANADA:	DSL/NDSL	All ingredients are listed.
		WHMIS	Not Classified.
<u>c.</u>	EC:	EINECS	All ingredients are listed.

SECTION 16 - OTHER INFORMATION

For details on specific requirements, you should contact the appropriate agency in your state.

While Vapor Technologies Inc. believes the information contained herein to be true and accurate, it has relied on information provided by others. Vapor Tech makes no warranties, expressed or implied, as to the accuracy of the information contained herein or with respect to the results to be obtained from the use of this product. Vapor-Tech disclaims all liability with respect to the use of this product, including without limitation, liability for injury to the user or third-party persons.