



SPECIALTY ENVIRONMENTAL CHEMICALS AND EQUIPMENT

VP-55A VAPOR PHASE CARBON ADSORBER FOR AMMONIA/AMINES

DESCRIPTION:

Portable carbon adsorber designed for ammonia and amine vapors. The drum contains approximately 200 pounds of specialized media which is impregnated with acid. When ammonia and amines attach to the active sites of the carbon they are neutralized by the impregnated acid. This unit is designed for small to moderate air flows (10-120 CFM). Vessels are made of very durable steel with stainless steel internal distributor.

PRODUCT USES & APPLICATIONS

- Product Storage Vents
- Process & Reactor Vents
- Wastewater Odor Control
- Sewer Vents
- Lab Applications
- Frac & Mix Tank Vapor Control

Vessel Specifications

Vapor Inlet	2" FNPT
Vapor Outlet	2" FNPT
Monitor Port	3/4" FNPT (fits most breakthrough indicators)
Internal Distributor	Stainless Steel
Dimensions	25" dia x 35" h
Internal/Exterior Coating	Epoxy/Enamel
Carbon Fill Volume	7.0 cu ft
Cross Sectional Area	2.8 sq ft
Approx. Carbon Weight	200 lbs
Vessel Construction	Steel
Shipping Weight	245 lbs (approx)
Options Available	Venturi/Electric Blower, Breakthrough Indicator

OPERATING SPECIFICATIONS

Maximum Flow	120 SCFM
Maximum Pressure	15 psig
Maximum Vacuum	17" Hg
Maximum Temperature	140°
Incompatible Vapors	Ketones & Aldehydes (Fire!)
Fire Hazards	Low Flow with High VOC's

PRESSURE DROP GRAPH (As filled 4x10 GAC)

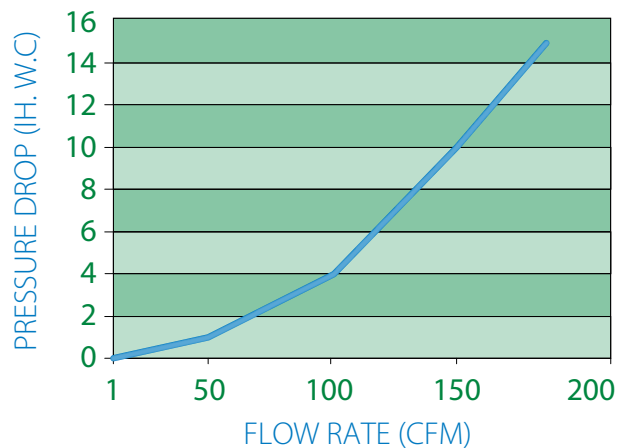
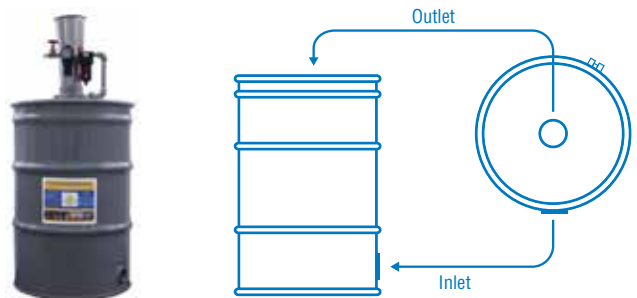
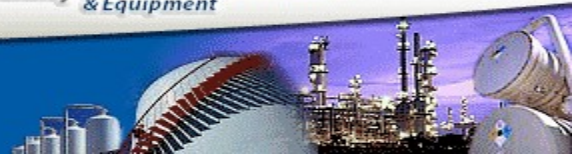


PHOTO & INLET / OUTLET ORIENTATION



VP55 Carbon Vessel Shown with Optional Venturi Blower



GHS SAFETY DATA SHEET

'VP-55A'

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name..... VP-55A
 Chemical Use..... Liquid and Vapor Application
 Chemical Family..... Activated Carbon
 Issue Date of SDS..... October 10, 2014
 Revision Date of SDS..... 1/31/2022

MANUFACTURER:

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EMERGENCY TELEPHONE NUMBER: (877) 840-0646

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION: NON-HAZARDOUS

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

GHS LABEL:

NO SYMBOL

SIGNAL WORD:

WARNING

<u>Hazard Statements</u>	<u>Precautionary Statements</u>
H303: May be harmful if swallowed. H316: Causes mild skin irritation. H320: Causes eye irritation. H333: May be harmful if inhaled.	P304 + P312: IF INHALED: Call a POISON CENTER or doctor if you feel unwell. 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 or doctor if you feel unwell. P337 + P313: If eye irritation persists: Get medical advice/attention.

	<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
B	PPE	3 - Serious
		4 - Severe
		B - Safety Glasses & Gloves

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENTS</u>	<u>CAS#</u>	<u>CONCENTRATION</u>
Activated Carbon	7440-44-0	85%
Phosphoric Acid - 85%	7664-38-2	15%

SECTION 4 - FIRST AID MEASURES

Eye Contact..... Flush with water for at least 15 minutes. Seek medical attention if irritation occurs.
 Skin Contact..... Wash thoroughly with soap and water. Seek medical attention if irritation persists.
 Inhalation..... Remove to fresh air. Administer first aid as appropriate. Seek medical attention.
 Ingestion..... Do not induce vomiting. Dilute by giving water or milk. Seek immediate medical attention.

SECTION 5 - FIREFIGHTING MEASURES

Suitable Extinguishing Media: Flood with copious amounts of water.
 Unsuitable Extinguishing Media:..... No further relevant information available.
 Combustion Products: Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, permanganate, etc. may result in fire.
 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.

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:..... Sweep up unused carbon and discard in refuse container or repackage.

SECTION 7 - HANDLING AND STORAGE

Handling:..... Wet activated carbon removes oxygen from air causing a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Do not get in eyes, on skin or clothing. Do not breath dust.
 Storage:..... Store in dry place in original container. Keep away from direct sunlight and moisture. Keep container closed when not in use.
 Shelf-Life:..... One year.
 Storage Temperature:..... 5 - 43°C (41-110°F)

SECTION 8 EXPOSURE CONTROL / PERSONAL PROTECTION

<u>Component</u>	<u>ACGIH (TLV)</u>	<u>ACGIH (STEL)</u>	<u>OSHA (PEL)</u>
Activated Carbon	Not Known	Not Known	Not Known
Phosphoric Acid	Not Known	Not Known	1 mg/m ³ -ceiling

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

Personal Protective Equipment (PPE):

Eye Protection:..... Safety goggles/glasses recommended.
 Skin Protection:..... Avoid contact with skin. Rubber gloves recommended.
 Respiratory Protection:..... Standard precaution against dust; use respirator or dust mask.
 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 dust particles.
- Wear safety glasses and gloves.

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

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance:..... Black, Particulate, Odorless Solid
 Odor:..... Odorless
 Vapor Pressure:..... Not Determined.
 Odor Threshold:..... Not Determined.
 Vapor density:..... Not Determined.
 pH:..... Not Determined.
 Relative Density:..... Not Determined.
 Melting point/Freezing point:..... Not Determined.
 Solubility in water:..... Phosphoric Acid is soluble in water.
 Initial boiling point and range:..... Not Determined.
 Flash Point:..... Not Determined.
 Evaporation rate:..... Not Determined.
 Flammability (solid, gas):..... Not Determined.
 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):..... 2.3 g/cc real density

SECTION 10 - STABILITY & REACTIVITY

Reactivity:..... No dangerous reaction known under conditions of normal use.
 Chemical Stability:..... Stable.
 Hazardous Polymerization:..... Will not occur.
 Incompatibilities:..... Strong oxidizers such as ozone, liquid oxygen, chlorine, permanganate, etc.
 Decomposition Products:..... Carbon monoxide may be generated in the event of fire.

Likely Routes of Exposure:..... Inhalation, Eye and Skin Contact

Acute symptoms and effects:

Eye..... The physical nature of carbon may cause eye irritation.
Phosphoric acid can damage the eyes.

Skin..... Carbon is not-toxic through skin absorption.
Phosphoric acid (if leached from carbon) can produce burns.

Ingestion..... Carbon is non-toxic through ingestion.
Phosphoric acid is a corrosive irritant.

Inhalation:..... The physical nature of carbon may irritate the respiratory system.
Phosphoric acid (if leached from carbon) can damage nasal and respiratory passages.

Chronic Exposure:..... The effects of chronic and subchronic exposure have not been determined.

Toxicity Data:

LD50

LC50

Impreg. Carbon (Rat-Oral) - 10 g/kg

(Rat-Inhalation) - 64.4 mg/1

Carcinogenicity..... Not Determined.

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

VP-55A carbon impregnated with Phosphoric acid 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 otherwise inappropriate).

SECTION 14 - TRANSPORTATION INFORMATION

A. USA: UN Number..... Not Regulated.
D.O.T UN Proper Shipping Name..... Not Regulated.
Packaging group..... Not Regulated.
Technical Shipping Name..... Activated Carbon (Not DOT Regulated)
D.O.T. Label..... Not Regulated.
D.O.T. Placard..... Not Regulated.
Freight Class Package..... Class 70

B. CANADA: TDG..... Not Regulated.

C. ENGLAND: Approved Carriage List..... Not Regulated.

SECTION 15 - REGULATORY INFORMATION

A. 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

B. CANADA: DSL/NDSL..... All ingredients are listed.
WHMIS..... Not Classified.

C. EC: EINECS..... All ingredients are listed.

SECTION 16 - OTHER INFORMATION

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

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Revision Date 1/31/2022