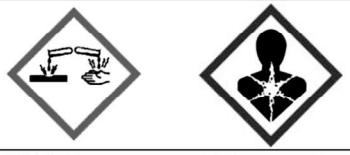
Safety Data Sheet

Product name:

EthyAbsorb®

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758
Prepared according to GB CLP which is the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain

1	SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING	
1.1	Product identifier	Substance name: EthyAbsorb® (impregnated activated alumina)
	Unique Formula Identifier (UFI)	7S00-E0UX-A00Q-CHMN
1.2	Relevant identified uses of the substance or mixture and uses advised against	Relevant identified uses: An odour absorbent for industrial air purification (e.g. in paper mills, sewage treatment). Uses advised against: No data Reason why uses advised against: No data
1.3	Details of the supplier of the safety data sheet	Ethyline Filtration Ltd Office 5, Marlowe House, Watling House Hockliffe Bedfordshire LU7 9LS
1.4	Emergency telephone number	044 (0) 1582 932425

2	SECTION 2: HAZARDS IDENTIFICATION			
2.1	Classification of the substance or mixture			
2.1.1	Classification according to Regulation (EC) No 1272/2008 (CLP/GHS)			
2.2	Label elements			
2.2.1	Labelling in accordance with EC Regulation No 1272/2008 (CLP/GHS)			
	Hazard pictogram		Signal word	DANGER
	Hazard statements	H314; Causes severe skin burns and eye damage H361d; Suspected of damaging fertility or the unborn child		
	Precautionary statements	P201; Obtain special instructions before use. P260; Do not breathe dust/fume/gas/mist/vapours/spray. P264; Wash hands and face thoroughly after handling. P280; Wear protective gloves/protective clothing/eye protection/face protection. P310; Immediately call a POISON CENTER/doctor P501; Dispose of contents/container to a suitable vessel for containment		
	Supplemental Hazard information (EU)			
2.3	Other hazards			
	The preparation contains a substance that has a workplace exposure limit (WEL)			

3	SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS							
3.2	Mixtures							
	Chemical characterisation							
	Chemical name	CAS No	Index No.	REACH registration No	EC No	Classification according to Regulation (EC) No 1278/2008 (CLP)	% [weight]	SCL, M-factor, ATE
	Aluminium oxide	1344-28-1		01-2119529248-35-xxxx	215-691-6	Not classified	90-95%	No data
	Potassium permanganate	7722-64-7	025-002-00-9	01-2119480139-34-xxxx	231-760-3	Ox. Sol. 2 H272; Acute Tox. 1 H302; Corr. 1; H314 Eye dam. 1; H318 Repr. 2; H361d STOT RE 2; H373 Aquatic Acute 1 H400; Aquatic Chronic 1 H410.	3.5-5%	No data

4	SECTION 4: FIRST AID MEASURES	
4.1	Description of first aid measures	
	General notes	
	Following inhalation	Remove casualty to fresh air and provide warmth and rest
	Following skin contact	Clean areas of skin affected with soap and plenty of water. If necessary, seek medical advice
	Following eye contact	Wash out eye thoroughly with plenty of water until irritation subsides; if necessary, consult an eye specialist/ophthalmologist
	Following ingestion	If product is swallowed, do not induce vomiting. Drink plenty of water and, if necessary, seek medical advice
	Self-protection of the first aider	If the atmosphere is dusty ensure that there is sufficient LEV or suitable respiratory protective equipment is used.
4.2	Most important symptoms and effects, both acute and delayed	None known
4.3	Indication of any immediate medical attention and special treatment needed	Treatment as described above

5	SECTION 5: FIRE FIGHTING MEASURES	
5.1	Extinguishing media	Suitable extinguishing media: To suit local surroundings (e.g. chemical powder, carbon dioxide, dry sand, water mist) Unsuitable extinguishing media: high volume of water e.g. water jet
5.2	Special hazards arising from the substance or mixture	Hazardous combustion products: see below Product is not flammable. No hazards except low volumes of oxygen may be released in a fire
5.3	Advice for fire fighters	Self-contained breathing apparatus may be required

6	SECTION 6: ACCIDENTAL RELEASE MEASURES	
6.1	Personal precautions, protective equipment and emergency procedures	For non-emergency personnel: - Protective equipment: Adhere to personal protective measures. Avoid inhalation of dust - Emergency procedures: No data For emergency responders: Adhere to personal protective measures. Avoid inhalation of dust
6.2	Environmental precautions	Do not allow to get into wastewater or waterways; if this occurs, inform the relevant water authority at once
6.3	Methods and materials for containment and cleaning up	For containment: suitable container For cleaning up: In the event of spillage, take up mechanically (e.g. vacuum up) into tightly closed containers. Other information: Adhere to personal protective measures
6.4	Reference to other sections	See section 8 for personal protective equipment

7	SECTION 7: HANDLING AND STORAGE	
7.1	Precautions for safe handling	Protective measures: Handle in accordance with good hygiene and safety practice. Avoid the raising and deposition of dust Measures to prevent fire: Keep away from sources of ignition Measures to prevent aerosol and dust generation: vacuum up regularly Measures to protect the environment: keep in tightly sealed containers Advice on general occupational hygiene: Keep tightly sealed in original container and protect from moisture
7.2	Conditions for safe storage, including any incompatibilities	Technical measures and storage: see below Packaging materials: Keep in original container/s Requirements for storage rooms and vessels: Ensure adequate ventilation of the storage area. Keep containers tightly closed, at temperatures < 190°C and dry Storage class: - Further information on storage conditions: No data
7.3	Specific end use(s)	Recommendations: An odour absorbent for industrial air purification Industrial sector specific solutions: No data

8	SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION								
8.1	Control parameters								
	Workplace Exposure Limits (WELs) have been assigned by the HSE (EH40/2011)								
	LTEL (8-hour TWA)			10 mg/m³			Data for inhalable aluminium oxide dust		
	LTEL (8-hour TWA)			4 mg/m$^{£}$			Data for respirable aluminium oxide dust		
	Substance name	Aluminium oxide							
	EC number	215-691-6			CAS number	1344-28-1			
	DNELs								
		Workers				Consumers			
	Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects systemic
	Oral	Not required				No data	No data	1.32 mg/m³	No data
	Inhalation	3 mg/m³	No data	3 mg/m³	No data	No data	No data	0.75 mg/m³	0.75 mg/m³

	Dermal	No data	No data	0.84 mg/m³	No data	No data	No data	0.3 mg/m³	No data
	PNECs								
	Environmental protection target				PNEC				
	Fresh water				No hazard identified				
	Freshwater sediments				Insufficient hazard data available (further information necessary)				
	Marine water				No hazard identified				
	Marine sediments				Insufficient hazard data available (further information necessary)				
	Food chain				Insufficient hazard data available (further information necessary)				
	Microorganisms in sewage treatment				No hazard identified				
	Soil (agriculture)				Insufficient hazard data available (further information necessary)				
	Air				No hazard identified				
	Substance name		Potassium permanganate						
	EC number		231-760-3	CAS number				7722-64-7	
	DNELs								
		Workers				Consumers			
	Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects systemic
	Oral	Not required				No threshold derived	No threshold derived	No threshold derived	0.011 mg/kg bw/day
	Inhalation	No threshold derived	No threshold derived	No threshold derived	0.2 mg/m³	No threshold derived	No threshold derived	No threshold derived	0.039 mg/m³
	Dermal	No threshold derived	No threshold derived	No threshold derived	No threshold derived	No threshold derived	No threshold derived	No threshold derived	No threshold derived
	PNECs								
	Environmental protection target				PNEC				
	Fresh water				0.06 µg/L				
	Freshwater sediments				No data				
	Marine water				No data				
	Marine sediments				No data				
	Food chain				Insufficient data				
	Microorganisms in sewage treatment				1.64 mg/L				
	Soil (agriculture)				No data				
	Air				No hazard identified				
8.2	Exposure controls								
	Appropriate engineering controls	Substance/mixture related measures to prevent exposure during identified uses: No data Structural measures to prevent exposure: Provide adequate ventilation (e.g. local exhaust ventilation) Organisational measures to prevent exposure: No data Technical measures to prevent exposure: No data							
	Personal protection equipment	Observe normal standards for handling chemicals Wash hands before breaks and after work Avoid inhalation of dust if raised Wear personal protective equipment appropriate to the task (see below)							
	Eye and face protection	Safety goggles if risk of eye contamination, BS EN 166:2002							
	Skin protection	Hand protection: Suitable rubber gloves, Class EN ISO 374-1/Type C Other skin protection: Protective overalls							
	Respiratory protection	Approved dust mask for dust; EN 143: FFP3, if ventilation is insufficient							
	Thermal hazards	No data							
	Environmental exposure controls	Substance/mixture related measures to prevent exposure: Instruction measures to prevent exposure Organisational measures to prevent exposure Technical measures to prevent exposure							

9	SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES			
9.1	Information on basic physical and chemical properties			
	Physical state	Solid	Colour	Purple (brown after use)
	Odour	Odourless	pH	Not determined
	Boiling pt/range	Not determined	Melting point/freezing point	Not determined
	Flash point	Not applicable	Relative density	3.3 g/cm³

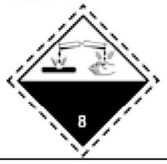
	Solubility	Slight. Potassium permanganate will leach out to give purple/brown colour	Odour threshold	Not applicable
	Evaporation rate	Not applicable	Flammability	Not applicable
	Lower and upper explosion limit	Not applicable	Vapour pressure	Not applicable
	Relative vapour density	Not applicable	Partition coeff. LogPoct/water	Not applicable
	Auto-ignition temperature	Not applicable	Kinematic viscosity	Not applicable
	Explosive properties	Not determined	Oxidising properties	Not determined
	Decomposition temperature	Not determined	Particle characteristics	Not determined
9.2	Other information	None known		

10	SECTION 10: STABILITY AND REACTIVITY	
10.1	Reactivity	None known
10.2	Chemical stability	Stable under normal conditions of handling
10.3	Possibility of hazardous reactions	Hazardous polymerisation will not occur
10.4	Conditions to avoid	Contact with oxidisable material and temperatures > 190°C
10.5	Incompatible materials	Oxidisable materials
10.6	Hazardous decomposition products	None

11	SECTION 11: TOXICOLOGICAL INFORMATION						
11.1	Information on hazard classes as defined in Regulation (EC) No 1272/2008 (results for potassium permanganate)						
	Hazard class	Method	Species	Route of exposures	Effective dose	Exposure time	Results
	Acute toxicity	LD_{50}	Rat	Oral	No data	15d	>2000 mg kg bw
	Skin corrosion/irritation	Corrosive on the skin of a rabbit. Full thickness destruction of skin tissue was observed 4h after application of 0.5g of the test substance. Fully reversible after approximately 14 days.					
	Serious eye damage/irritation	Study not conducted as substance classified as skin corrosive cat. 1 leading to classification as serious eye damage cat. 1					
	Respiratory or skin sensitisation	Potassium permanganate was not shown to be a contact allergen in guinea pigs.					
	Germ cell mutagenicity	Potassium permanganate was shown to not be mutagenic under the *in vivo* Ames Test. It was also shown not to elicit chromosome aberrations under the EU B12 *in vivo* mammalian erythrocyte micronucleus test.					
	Carcinogenicity	No evidence of carcinogenicity during a two-year study on rats and mice.					
	Reproductive toxicity	Under the conditions of the two-generation reproductive toxicity study the No Observed Adverse Effect Level (NOAEL) for the parental animals was determined to be 20 µg/L. The No Observed Effect Level (NOEL) for reproductive toxicity was determined to be 20 µg/L.					
	Summary of evaluation of the CMR properties	Potassium permanganate has been classified as reprotoxic					
	STOT-single exposure	Not toxic					
	STOT-repeated exposure	Potassium permanganate was found to be harmful to the brain by inhalation.					
	Aspiration hazard	Potassium permanganate was found to be harmful to the brain by inhalation.					
11.2	Information on other hazards	None					

12	SECTION 12: ECOLOGICAL INFORMATION	
12.1	Toxicity (Potassium permanganate)	
	Acute (short-term) toxicity:	Fish: LC50 (96h) 0.47 mg/L (*Poecilia reticulata)* Guppy Crustacea: No data Algae/aquatic plants EC50 0.43 mg/L algae Other organisms EC50 (48h) 0.06 mg/L *(Daphnia magna)*
	Chronic (long-term) toxicity	Fish: No data Crustacea: No data Algae/aquatic plants NOEC 0.22 mg/L algae Other organisms: No data
12.2	Persistence and degradability	Abiotic Degradation: No data Physical- and photo-chemical elimination: No data Biodegradation: Not required substance is inorganic
12.3	Bioaccumulative potential	Partition coefficient n-octanol /water (log Kow): No data Bioconcentration factor (BCF): No data
12.4	Mobility in soil	Known or predicted distribution to environmental compartments: Surface tension : No data Adsorption/Desorption : No data
12.5	Results of PBT and vPvB assessment	Not determined
12.6	Endocrine disrupting properties	Not determined
12.7	Other adverse effects	None known

13	SECTION 13: DISPOSAL CONSIDERATIONS	
13.1	Waste treatment methods	
	Product/ Packaging disposal	If possible, recycle to supplier or approved recycling company. If not (e.g. designated as waste), dispose of in accordance with national and local authority regulations, e.g. The Hazardous Waste (England & Wales) Regulations 2005. Treat empty containers in the same way as the product. If possible, wash out thoroughly and recycle Waste codes/ waste designations according to LoW: No data
	Waste treatment-relevant information	No data
	Sewage disposal-relevant information	No data
	Other disposal recommendations	No data

14	SECTION 14: TRANSPORT INFORMATION				
14.1	UN number	UN 1759	14.2	UN proper shipping name	CORROSIVE SOLID, N.O.S.
14.3	Transport hazard class(es)	Class 8  	14.4	Packing group	III
14.5	Environmental hazards	The product should not be marked as a marine pollutant	14.6	Special precautions for user	Wear gloves capable of protecting against an oxidising substance, EN ISO 3784-1/A and eye protection to BS EN 166: 2002
14.7	Maritime transport in bulk according to IMO instruments	No data			

15	SECTION 15: REGULATORY INFORMATION	
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	
	Safety, health and environmental regulations	The SDS has been revised in accordance with EC Regulation 1272/2008 (CLP) Annex II amendment June 2020
15.2	Chemical safety assessment	
	No Chemical Safety Assessment has been carried out for this mixture by the supplier	

16	SECTION 16: OTHER INFORMATION		
	Indication of changes	This SDS has been revised in accordance with EC Regulation 1272/2008 (CLP) and in response to a change in Annex II REACH regulations, June 2020. Classification change based on REACH dossier for potassium permanganate.	
	Abbreviations and acronyms	None	
	Key literature references and sources for data	Other suppliers' safety data sheets, EH40 (2020)	
	Prepared by	Mark Tarsey - sales@ethylenefiltrationltd.co.uk	
	Date of issue	29/04/2024	
	Classification according to Regulation (EC) Nr 1272/2008		Classification procedure
	Relevant H statements (number and full text)	H272, May intensify fire, oxidiser H302, Harmful if swallowed H314; Causes severe skin burns and eye damage H318; Causes serious eye damage H361d; Suspected of damaging the unborn child H373; May cause damage to the brain through prolonged or repeated exposure by inhalation H400, Very toxic to aquatic life H410, Very toxic to aquatic life with long lasting effects	
	Training advice	None	
	Further information	Comply with COSHH Regulations This information is based on our present state of knowledge and is intended to describe our products from the point of view of the safety requirements. It should not be construed as guaranteeing specific problems	