

Safety Data Sheet



Product name:

Chemsorb® I425

Document N°: LB01-00414

Issue: 1

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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: Chemsorb I425
	Unique Formulation identifier (UFI)	U610-E0C2-400X-A46K
1.2	Relevant identified uses of the substance or mixture and uses advised against	Relevant identified uses: For removal of airborne ammonia and amines (e.g. in breathing air respirators) Uses advised against: No data Reason why uses advised against: No data
	Details of the supplier of the safety data sheet	Molecular Products Ltd Parkway, Harlow Business Park, Harlow, Essex, CM19 5FR, UK +44 (0)1279 445111 (1) (1) Only available during office hours 0900 – 1700 GMT
1.4	Emergency telephone number	+44 1865 407333 (24- hour, English speaking) +86 532 8388 9090 (China NRCC) +52 555 004 8763 (Mexico) +56 225 829 336 (Chile) +55 11 3197 5891 (Brazil)

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)			
H290 Corr.1 H302; Acute tox 4 (oral) H314; Corr.1B			
2.2 Label elements			
2.2.1 Labelling in accordance with EC Regulation No 1272/2008 (CLP)			
Hazard pictogram		Signal word	DANGER
Hazard statements			
H290; May be corrosive to metals H302; Harmful if swallowed H314; Causes severe skin burns and eye damage			
Precautionary statements			
P234 - Keep only in original container. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash hands and face thoroughly after handling. P270 - Do not eat, drink, or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302+P352 - IF ON SKIN: Wash with plenty of water P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER/doctor P312 - Call a POISON CENTER/doctor if you feel unwell. P321 - Specific treatment (see advice on this label). P330 - Rinse mouth. P362+P364 - Take off contaminated clothing and wash it before reuse. P363 - Wash contaminated clothing before reuse. P390 - Absorb spillage to prevent material damage. P406 - Store in corrosive resistant container with a resistant inner liner. P501 - Dispose of contents/container according to local regulations			

	Supplemental Hazard information (EU): No data
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	Activated carbon virgin coconut shell plus additives						
	Substance name	CAS No	Index No.	REACH Registration No.	EC No	Classification according to Regulation (EC) No 1278/2008 (CLP)	% [weight]	SCL, M-factor, ATE
	Activated Carbon	7440-44-0	-	01-2119488894-16-0000	231-153-3	Not classified	> 60%	No data
	Phosphoric acid	7664-38-2	015-011-00-6	No data	231-633-2	Corr. 1; H290 Acute tox. 4 (oral) H302 Skin Corr. 1B H314	< 30%	Skin corr. 1B H314; C>=25%; Skin irrit 2; H315; 10% <= C < 25%; Eye irrit 2; H319; 10% <= C < 25%;

4 SECTION 4: FIRST AID MEASURES		
4.1	Description of first aid measures	
	General notes	
	Following inhalation	Not a normal route of exposure
	Following skin contact	Immediately clean areas of skin affected with soap and plenty of water. if necessary, seek medical advice
	Following eye contact	Immediately wash out eye thoroughly with plenty of water until irritation subsides; if necessary, consult an eye specialist/ophthalmologist
	Following ingestion	If product is swallowed, call physician or poison centre. If professional advice is not available, do NOT induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Take a copy of the label and/or SDS with the victim to the health professional
	Self-protection of the first aider	This product may be corrosive to skin and eyes. Wear appropriate PPE.
4.2	Most important symptoms and effects, both acute and delayed	Not applicable
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., water spray, carbon dioxide, foam or chemical powder) Unsuitable extinguishing media: No data
5.2	Special hazards arising from the substance or mixture	The product may give rise to hazardous fumes in a fire. Heavy carbon dust in air presents a dust explosion hazard Hazardous combustion products: None known
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 if raised - Emergency procedures: No data For emergency responders: Adhere to personal protective measures. Avoid inhalation of dust if raised
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: For cleaning up: In the event of spillage, take up into tightly closed containers, ideally using grounded vacuum to prevent static discharge. Avoid using overly wet materials in case of an exothermic reaction. Do not sweep up dry dust because of risk of ignition. Adhere to personal protective measures. Label container and dispose of as prescribed Other information: No data
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. Keep away from incompatible materials. Wet activated carbon removes oxygen from air causing a severe hazard (oxygen deficient atmosphere) to workers inside carbon vessels and enclosed or confined spaces. Establish Confined

		Space Entry Procedures before entering: No data Measures to prevent fire: No data Measures to prevent aerosol and dust generation: No data Measures to protect the environment: No data Advice on general occupational hygiene: No data
7.2	Conditions for safe storage, including any incompatibilities	Technical measures and storage conditions: No data Packaging materials: No data Requirements for storage rooms and vessels: Ensure adequate ventilation of the storage area. Keep containers tightly closed, cool and dry Storage class: - Further information on storage conditions
7.3	Specific end use(s)	Recommendations: For removal of airborne ammonia and amines Industrial sector specific solutions: No data

8	SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION
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8.1	Control Parameters
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Workplace Exposure Limits (WELs) have been assigned by the HSE (EH40/2011)

LTEL (8 hours)	ppm	10	mg/m ³	Inhalable dust
LTEL (8 hours)	ppm	4	mg/m ³	Respirable dust

Substance name	Activated Carbon
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EC number	231-153-3	CAS number	7440-44-0
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DNELs (No data, not classified as toxic)

	Workers				Consumers			
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects
Oral	Not required				No data	No data	No data	No data
Inhalation	No data	No data	No data	No data	No data	No data	No data	No data
Dermal	No data	No data	No data	No data	No data	No data	No data	No data

PNECs (No data, not classified for aquatic toxicity)

Environmental protection target	PNEC
Fresh water	No data
Freshwater sediments	No data
Marine water	No data
Marine sediments	No data
Food chain	No data
Microorganisms in sewage treatment	No data
Soil (agriculture)	No data
Air	No data

Substance name	Phosphoric acid
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EC number	231-633-2	CAS number	7664-38-2
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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 threshold derived	No data	0.1 mg/kg bw/day
Inhalation	2 mg/m ³	Hazard unknown	1 mg/m ³	10.7 mg/m ³	No threshold derived	Hazard unknown	0.36 mg/m ³	4.57 mg/m ³
Dermal	No threshold derived	Hazard unknown	No threshold derived	Hazard unknown	No threshold derived	Hazard unknown	No threshold derived	Hazard unknown

PNECs

Environmental protection target	PNEC
Fresh water	No hazard identified
Freshwater sediments	No hazard identified
Marine water	No hazard identified
Marine sediments	No hazard identified
Food chain	No potential for bioaccumulation
Microorganisms in sewage treatment	No hazard identified

	Soil (agriculture)	No hazard identified
	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 contact with skin and eyes. 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
	Skin protection	Hand protection: Rubber gloves (consider your own risk assessment, e.g., breakthrough times, rates of diffusion and degradation, tasks undertaken) Other skin protection: Protective overalls
	Respiratory protection	Approved dust mask or respirator (e.g., EN 149:2001 FFP3) for dust if ventilation is insufficient
	Thermal hazards	No information
	Environmental exposure controls	Substance/mixture related measures to prevent exposure: No data Instruction measures to prevent exposure: No data Organisational measures to prevent exposure: No data Technical measures to prevent exposure: No data

9	SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES			
9.1	Information on basic physical and chemical properties			
	Physical state	Amorphous solid	Colour	Black
	Odour	Odourless	pH	2.3 (ASTM D2867)
	Boiling pt/range	ca. 4000°C	Melting point/freezing point	Not determined
	Flash point	Not applicable	Relative density	0.66-0.69 g/ml
	Solubility	Insoluble	Decomposition temperature	No data
	Evaporation rate	No data	Flammability	Non-flammable
	Lower and upper explosion limit	No data	Vapour pressure	No data
	Relative vapour density	No data	Partition coeff. LogPoct/water	No data
	Auto-ignition temperature	No data	Kinematic viscosity	No data
	Explosive properties	No data	Oxidising properties	No data
	Particle characteristics	No data		
9.2	Other information	None known		


10	SECTION 10: STABILITY AND REACTIVITY	
10.1	Reactivity	Stable under normal conditions of handling
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	Heat - high temperatures
10.5	Incompatible materials	Water reactive chemicals - strong oxidizers, strong bases
10.6	Hazardous decomposition products	Acrid smoke and irritating fumes - oxides of carbon and phosphorus

11	SECTION 11: TOXICOLOGICAL INFORMATION						
11.1	Information on hazard classes as defined in Regulation (EC) No 1272/2008						
	Hazard class	Method	Species	Route of exposure	Effective dose	Exposure time	Results
	Acute toxicity (Data activated carbon)	LD ₅₀	Rat	oral	> 10,000 mg/kg	No data	No data
		LC ₅₀	Rat	Inhale	> 64,000 mg/m ³	No data	No data
	Acute toxicity (Data for phosphoric acid)	LD ₅₀	Rat	Oral	1530 mg/kg	No data	No data
	Skin corrosion/irritation	No data					
	Serious eye damage/irritation	No data					
	Respiratory or skin sensitisation	No data					
	Germ cell mutagenicity	No data					
	Carcinogenicity	No data					
	Reproductive toxicity	No data					

	Summary of evaluation of the CMR properties	This product contains no substances which have been classified as CMR.
	STOT-single exposure	No data
	STOT-repeated exposure	No data
	Aspiration hazard	No data
11.2	Information on other hazards	
	This product is not expected to cause long-term adverse health effects, any mutagenic effects or reproductive or developmental health effects	

12	SECTION 12: ECOLOGICAL INFORMATION	
12.1	Toxicity (None of the constituents of this product have been classified for ecotoxicity)	
	Acute (short-term) toxicity:	Fish: No data Crustacea: No data Algae/aquatic plants: No data Other organisms: No data
	Chronic (long-term) toxicity	Fish: No data Crustacea: No data Algae/aquatic plants: No data Other organisms: No data
12.2	Persistence and degradability	Abiotic Degradation: No data Physical- and photo-chemical elimination: No data Biodegradation: No data
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: No data Surface tension: No data Adsorption/Desorption: No data
12.5	Results of PBT and vPvB assessment	Not applicable
12.6	Endocrine disrupting properties	Not determined
12.7	Other adverse effects	No data

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. Material is a special waste under UK legislation. 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 or ID number	3262	14.2	UN proper shipping name	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.
14.3	Transport hazard class(es)	8	14.4	Packing group	III
14.5	Environmental hazards	Not classified	14.6	Special procedures for user	No data
14.7	Maritime transport in bulk according to IMO instruments	Not applicable			

15	SECTION 15: REGULATORY INFORMATION	
15.1	Safety, health and environmental regulations/ legislation specific for the substance or mixture	
	In accordance with EC Regulation 1272/2008 (CLP) the product is classified. Other regulatory information and provisions are not applicable for this product	
15.2	Chemical safety assessment	
	Not applicable	

16		SECTION 16: OTHER INFORMATION	
Indication of changes	The classification of this substance has changed from not classified to H290 Corr.1; H302; Acute tox 4 (oral) ; H314; Corr.1B. This is due to the phosphoric acid content which although it is absorbed by the carbon granules has not been shown, by studies, to be non-corrosive.		
Abbreviations and acronyms	None		
Key literature references and sources for data	Other suppliers' safety data sheets, Annex VI of the CPL Regulation (EC) No 1272/2008, EH40 (2020)		
Prepared by	Dr Patricia Wormald, Molecular Products, PW@molprod.com Neil Stearn, Cambridge Environmental Assessments; neil.stearn@cea-res.co.uk		
Date of issue	30 August 2021		
Classification according to Regulation (EC) NO 1272/2008		Classification procedure	
H290 Corr.1 H302; Acute tox 4 (oral) H314; Corr.1B		No data	
Relevant H-statements (number and full text)	H290; May be corrosive to metals H302; Harmful if swallowed H314; Causes severe skin burns and eye damage		
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		