



HI - CAPACITY AIR PURIFICATION SPHERES

- ★ Perfect for small, medium and large Air Purification Systems
- ★ Precision formulated to exacting specifications
- ★ Easy to test for remaining life
- ★ A must for Hi-performance protection
- ★ SafeEasy to use....Cuts energy costs
- ★ Controls corrosion....Reacts to destroy gases and vapours
- ★ Reach compliant



THE MAJOR ADVANTAGES OF ALPHASORB 8 OVER OTHER MEDIA TYPES

High Performance Alphasorb 8 Media consists of activated alumina that is entirely impregnated with precise blends of dynamic-oxidant chemicals and selected bases whilst being formed to uniformly-sized heavy-duty spheres. Alphasorb's unique manufacturing procedures enhance porosity and each sphere is internally honeycombed with tiny channels that branch and twist throughout, to present, massive, chemically active surface area per unit weight.

TYPICAL SPECIFICATIONS

Shape:	Spherical	Bulk Density:	800kg/m ³ at 15% moisture
Size:	>5.69mm<10%	Potassium Permanganate:	8% by weight (dry)
	5.69 - 2,36mm 85%	Moisture content:	25% Maximum
	<2,36mm<5%		



APPLICATION GUIDELINES

Temperature	-4°F to 125°F (-20°C to 51°C)
Humidity	10 - 95%RH
Air Speed	60 - 500fpm (0.30 - 2.54 m/s)
Performance	99.5% (min) initial removal efficiency in Alphasorb Systems

PRINCIPLE OF OPERATION

Intricate channels within Alphasorb 8 Air Purification Spheres extensively increase the chemical surface areas for the destruction of corrosives and contaminants, including:

Highly reactive: H₂S, SO₂, SO₃, Ethylene (Olefins), Formaldehyde, Methyl/Ethyl Mercaptans

Reactive: Chlorine • HCl • Short-chained Alcohols • Aldehydes • Light Organic Vapours • Organic Acids • Inorganic Acids

Less Active: Aromatics • Long-chained Alcohols • Ketones • Chlorinated Hydrocarbons • Paraffins Heavy Organic Vapours • Heavy Mercaptans

Note: Alphasorb provides other media for specific Applications, including special blends for individual requirements.

ALPHASORB 8 MEDIA PERFORMANCE TESTS

Performance tests have been conducted by independent laboratories.

The tests were performed under conditions that empirically reflected field environments and optimum design criteria. ASTM approved analytical equipment and testing procedures were utilised, to assure unbiased, objective results.

In tests, Alphasorb 8 clearly demonstrated state-of-the-art performance characteristics in removing corrosive contaminants and odours.

OPERATIONAL EFFICIENCY

Alphasorb 8 proprietary chemical formulations and production procedures empower it to operate at high efficiency levels, to meet the design criteria and characteristics of the User's air purification system.

Rigorous usage by industries and testings by laboratories have demonstrated and authenticated the superb performance of Alphasorb 8.

After an extended period of usage in an air purification system, there is an exact and simple way to determine the active chemicals still available in the Alphasorb 8 Media . . .

★ *We conduct a standard laboratory procedure and titration test for the active chemical percent, remaining.
This service is readily available from your local Alphasorb Distributor*

QUALITY CONTROL

Every batch of Alphasorb media is thoroughly tested according to the procedures described in Alphasorb's ISO 9001 Quality Systems Manual. This testing includes but is not limited to : bulk density, potassium permanganate content, moisture content and crush strength.

DISPOSAL

Alphasorb 8 should be disposed off according to local, state and federal guidelines.



For further information about Alphasorb media and solutions to all your filtration needs please contact us:

Phone: (919) 607-6765 E-mail: sales@controlledairdesign.com

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015 Page number: 1 of 12
Revision: 4 April 2016 Version: 4, supersedes version 3 from 11 November 2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name ALPHASORB 8
(Mixture containing potassium permanganate)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Absorbent, air purification medium
Uses advised against Not available

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier Alphasorb Technologies (Pty) Ltd
Street address/P.O. Box 76 Rigger Road, Spartan
Country ID/Postcode/Place South Africa, 1620
Telephone number (+27) 11 394-3314
Fax-mail (+27) 11 394-3383
E-mail Info@alphasorb.com
www.alphasorb.com

1.4. Emergency telephone number

Country	Organisation	Address	Emergency number
United Kingdom	National Poisons Information Service (Belfast Centre) <i>Royal Victoria Hospital</i>	Grosvenor Road BT12 6BA Belfast	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
United Kingdom	National Poisons Information Service (Birmingham Centre) <i>City Hospital</i>	Dudley Road B18 7QH Birmingham	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
United Kingdom	National Poisons Information Service (Cardiff Centre) <i>Gwenwyn Word, Llundough Hospital</i>	Penarth CF64 2XX Cardiff	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
United Kingdom	NPIS Edinburgh (Scottish Poisons Information Bureau) <i>Royal Infirmary of Edinburgh</i>	51 Little France Crescent EH16 4SA Edinburgh	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
United Kingdom	Guy's & St Thomas' Poisons Unit <i>Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust</i>	Avonley Road SE14 5ER London	0870 243 2241 24 hours emergency
United Kingdom	National Poisons Information Service (Newcastle Centre) <i>Regional Drugs and Therapeutics Centre, Wolfson Unit</i>	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015	Page number: 2 of 12
Revision: 4 April 2016	Version: 4, supersedes version 3 from 11 November 2015

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This mixture meets the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008.

Physical and chemical effects	Does not meet the criteria for classification
Health effects	Skin irritation and eye damage.
Environment effects	Toxicity to aquatic live with long lasting effect.

Hazard classes and categories	Hazard statements
Skin Irrit. 2	H315 Causes skin irritation.
Eye Dam. 1	H318 Causes serious eye damage.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Trade name	ALPHASORB 8 (Potassium permanganate)
Hazard pictogram(s)	
Signal word	Danger
Hazard statement(s)	Causes skin irritation. Causes serious eye damage. Toxic to aquatic life with long lasting effects.
Precautionary statement(s)	Do not breathe dust. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.
Supplemental information on the label	Not available

2.3. Other hazards

2.3.1 PBT, vPvB assessment

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015 **Page number:** 3 of 12
Revision: 4 April 2016 **Version:** 4, supersedes version 3 from 11 November 2015

Mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII.

2.3.2 Other hazards which do not result in classification

Ingredients of the mixture are not listed in Annex XIV of REACH or the Candidate list.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not relevant.

3.2. Mixtures

Description: Mixture of the substances listed below including additives not requiring identification.

Name	Identifier number	Concentration (% w/w)	Classification according to CLP*
Aluminium oxide ¹	EC: 215-691-6 CAS: 1344-28-1 Index No.: not available	<70	Not classified
Sodium carbonate	EC: 207-838-8 CAS: 497-19-8 Index No.: 011-005-00-2	< 5	Eye Irrit. 2, H319
Potassium permanganate	EC: 231-760-3 CAS: 7722-64-7 Index. No.: 025-002-00-9	≤10	Acute Tox. 4 (oral) H302 Ox. Sol. 2 H272 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 Skin Corr. 1C H314**

Notes:

* For full text of H-statements and the information on the classification procedure see SECTION 16.

** Filled with new information based on test results (EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion

¹ Union workplace exposure limits

SECTION 4: First aid measures

4.1. Description of first aid measures

General notes In the case of health problems or if in doubt, inform a doctor and give him information from this Safety Data Sheet. In case of unconsciousness, bring the affected person into stable side position for transport. Do not induce vomiting. If the affected person vomits by himself, take care to prevent aspiration.
In the case of a life-threatening event, perform CPR and call a doctor.
Respiratory arrest - immediately apply artificial respiration.
Cardiac arrest - immediately perform indirect heart massage.

Ingestion DO NOT INDUCE VOMITING. Rinse mouth, drink 200-300 ml of cold water. Immediately call a doctor.

Inhalation Move person to fresh air and keep comfortable for breathing. In case of persistent symptoms, consult a doctor.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing 10-30 minutes from the inner corner to the outer, so as not to hit the other eye. Immediately call a doctor.

Skin contact Instantly remove any clothing soiled by the product. Rinse cautiously with water for 10-30 minutes. Secure the affected person to hypothermia. If skin irritation occurs

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015	Page number: 4 of 12
Revision: 4 April 2016	Version: 4, supersedes version 3 from 11 November 2015

get medical advice.

Self-protection of the first aider Not necessary

4.2. Most important symptoms and effects, both acute and delayed

Following eye or skin contact: skin irritation and eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available. Treatment is symptomatic.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water jet, water mist, foam, carbon dioxide (CO₂), dry powder.

Unsuitable extinguishing media Water high volume

5.2 Special hazards arising from the substance or mixture

Product releases oxygen when heated strongly which can intensify a fire.

During a fire can release harmful products. Do not breathe combustion products.

5.3 Advice for firefighters

Protective equipment: Wear self-contained breathing apparatus.

5.4 Additional information

Remove the product away from fire, if possible. Use water to keep fire exposed containers cool.

Remove remnants of extinguishing agents in accordance with the law.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with the product. Wear protective equipment. Do not breathe dust.

6.2 Environmental precautions

Avoid release to the environment (surface and ground water) and sewage.

6.3 Methods and material for containment and cleaning up

Collect mechanically and dispose in suitable containers. Dispose contaminated material as waste according to section 13. Ensure adequate ventilation.

When release in larger quantities occurs, inform appropriate authorities.

6.4 Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of dust. Any deposit of dust which cannot be avoided must be removed regularly. During work, do not eat, drink and smoke. Do not breathe dust. Use personal protective equipment specified in section 8. Maintain good personal hygiene. Follow valid regulations on health and safety.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015	Page number: 5 of 12
Revision: 4 April 2016	Version: 4, supersedes version 3 from 11 November 2015

7.2 Conditions for safe storage, including any incompatibilities

Store only in the original container. Protect from moisture. Keep container tightly sealed.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure limits

European occupational exposure limits (OEL)

Ingredient	CAS Number	Workplace exposure limit (WEL)			
		Long-term exposure limit (8-hr TWA reference period)		Short-term exposure limit (15 minute reference period)	
		ppm	mg.m ⁻³	ppm	mg.m ⁻³
Aluminium oxides inhalable dust respirable dust	1344-28-1	-	10	-	-
		-	4	-	-
Manganese and its inorganic compounds (as Mn)	--	-	0.5	-	-

8.1.2 Biological limit values

Mixture	DNEL worker	DNEL consumer	PNEC
	Not available	Not available	Not available
Potassium permanganate	Dermal, long-term, local = 0.03 mg/kg bw/day (human) Dermal, long-term, systemic = 1.25 mg/kg bw/day (human)	Oral, long-term, systemic = 0.02 mg/kg bw/day (human) Dermal, long-term, local = 0.03 mg/kg bw/day (human) Dermal long-term, systemic = 0.2 mg/kg bw/day (human) Inhalative, long-term, local = 0.03 mg/m ³ (human)	STP = 1.64 mg/L aqua (freshwater) = 0.00006 mg/L aqua (intermittent releases) = 0.0006 mg/L

8.1.3 Exposure limits at intended use

Not available

8.2 Exposure controls

Keep away from foodstuffs, beverages and food. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.

Eye/face protection Tightly sealed safety glasses.

Skin protection Material of gloves: Nitrile rubber, NBR
 Recommended thickness of the material: ≥ 0.4 mm

Respiratory protection When dusts are generated, wear respiratory protection. Filter P2.

Thermal hazard No relevant information available.

Environmental exposure controls Avoid release to the environment (surface and ground water) and sewage.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015	Page number: 6 of 12
Revision: 4 April 2016	Version: 4, supersedes version 3 from 11 November 2015

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<i>Appearance</i>	Solid beads
<i>State</i>	Solid
<i>Colour</i>	Violet
<i>Odour</i>	Odourless
<i>Odour threshold</i>	Not determined
<i>pH</i>	Not available
<i>Melting point/freezing point</i>	Not available
<i>Initial boiling point and boiling range</i>	Not available
<i>Flash point</i>	Not applicable – mixture of inorganic substances
<i>Evaporation rate</i>	Not available
<i>Flammability (solid, gas)</i>	Not flammable
<i>Upper/lower flammability or explosive limits</i>	Not determined
<i>Vapour pressure</i>	23 hPa at 20°C
<i>Vapour density</i>	Not determined
<i>Relative density</i>	Not determined
<i>Solubility(ies)</i>	Partly soluble in water.
<i>Partition coefficient: n-octanol/water</i>	Not applicable – mixture of inorganic substances
<i>Auto-ignition temperature</i>	Product is not self-igniting.
<i>Decomposition temperature</i>	Not determined
<i>Viscosity</i>	Not determined
<i>Explosive properties</i>	Product is not explosive.
<i>Oxidising properties</i>	Product is not oxidising. – test according to UN Handbook Test and Criteria Division 5.1 section 34.4.1

9.2 Other information

<i>Bulk density</i>	800 kg/m ³ at 20°C
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SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if used according to specifications.

The content of potassium permanganate is not sufficient to classify the product as oxidizing (test according to UN Handbook Test and Criteria Division 5.1 section 34.4.1).

10.2 Chemical stability

Stable under standard conditions (20°C, 101.3 kPa).

10.3 Possibility of hazardous reactions

In case of influence by acids decomposition possible with CO₂ being formed at the same time.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015

Page number: 7 of 12

Revision: 4 April 2016

Version: 4, supersedes version 3 from 11 November 2015

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

None in case of intended use and storage in compliance with instructions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Mixture: Based on available data, the classification criteria are not met. ATE (oral) _{mixture} >> 2 000.

The results of toxicological tests for relevant ingredients:

Ingredient	Method	Value
Potassium permanganate	Oral, rat, Method B.1 tris Acute Oral Toxicity - Acute Toxic Class Method, Directive 2004/73/EC.	LD ₅₀ >2 000 mg/kg bw
	Substance with harmonised classification Acute Tox. 4 H302	ATE oral = 500 (Used for the calculation of the ATE _{mixture})
	Inhalation	Not available
	Dermal EU Method B.3 (Acute Toxicity (Dermal))	LD ₅₀ > 2 000 mg/kg bw

Skin corrosion/irritation

According to study: "Alphasorb ESP1000: The Corrositex® Assay" (method OECD 435) the test item was considered to be NON-CORROSIVE.

ALPHASORB 8 contain less of hazardous components and are therefore also considered to be non-corrosive.

Skin irritation was not tested by this method, so the mixture is classified Causes skin irritation.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

STOT - single exposure

Based on available data the classification criteria are not met.

STOT-repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015

Page number: 8 of 12

Revision: 4 April 2016

Version: 4, supersedes version 3 from 11 November 2015

SECTION 12: Ecological information

12.1. Toxicity

Mixture: Toxic to aquatic life with long lasting effects.

The results of toxicological tests for relevant ingredients:

Ingredient	Method	Value
Potassium permanganate	Daphnia magna (EU C.2), 48h	EC50 (static) = 0.06 mg/l
	Desmodesmus subspicatus (EU C.3)	ErC50 (static) = 0.8 mg/l
	Poecilia reticulata (EU C.1), 96h	LC50 (static) = 0.47 mg/l

12.2 Persistence and degradability

Not applicable.

Ready biodegradability - the study does not need to be conducted if the substance is inorganic.

12.3 Bioaccumulative potential

Not applicable.

Log Pow of the mixture – not available. The study does not need to be conducted if the substance is inorganic.

BCF mixture - not available

12.4 Mobility in soil

Unlikely. Partition coefficient n-octanol/water is not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The waste code numbers mentioned are recommendations based on the probable use of the product. Disposal must be made according to official regulations and waste hierarchy as defined in the Waste Framework Directive.

Waste should not be disposed of by release to sewers.

Final decisions on the appropriate waste management method, in line with regional, national and European legislation, and possible adaptation to local conditions, remains the responsibility of the waste treatment operator.

Recommended waste codes based on European waste catalogue

15 00 00 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED

product residues - Fresh product

15 02 Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, 02* protective clothing contaminated by dangerous substances (* Hazardous waste).

product residues - Spent product

15 02 03 Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02

waste containers:

15 01 Packaging containing residues of or contaminated by dangerous substances

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015	Page number: 9 of 12
Revision: 4 April 2016	Version: 4, supersedes version 3 from 11 November 2015

10* (*Hazardous waste).

13.2 Additional information:

Fresh product – Irritant - HP4, Ecotoxic – HP14.

Spent product - Once the product is almost spent, all of the $KMnO_4$ is converted to manganese dioxide (MnO_2). Producer offers remaining life testing, that is, after the customer has installed the product for around 6 months he sends back a small sample for testing, when we grind the pellets they are completely brown from inside out which indicates that the $KMnO_4$ has been reduced to manganese dioxide. Initially, the pellets start off as a dark pink to violet colour. If all the manganese dioxide reacts with the contaminants it changes to an off white coloured pellet.

SECTION 14: Transport information

The mixture is considered a dangerous good for transportation regulations for reasons of environmental hazards.

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

14.8. Other information

Classification code

Labels

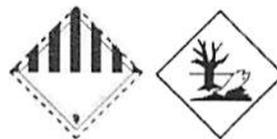
EmS

Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
3077			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.; (POTASSIUM PERMANGANATE)			
9			
III			
Yes			

Not available

Not applicable

M7



F-A, S-F

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
 - Authorisation: Not applicable
 - Restrictions on use: Not applicable
- Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015	Page number: 10 of 12
Revision: 4 April 2016	Version: 4, supersedes version 3 from 11 November 2015

and mixtures (CLP).

- Directive 94/33/EC on the protection of young people at work.
- Directive 92/85/EEC on the safety and health at work of pregnant workers.
- Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
- Directive 96/82/EC on the control of major-accident hazards involving dangerous substances.
- Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.
- Directive 2008/68/EC inland transport of dangerous goods
- Directive 2008/98/EC on waste
- Regulation (EC) No. 1357/2014 on waste and repealing certain Directives
- Control of Substances Hazardous to Health Regulations (COSHH)
- Control of Major Accident Hazards Regulations (COMAH)
- Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (CDG)
- Technical instructions (air):

Class	Share in %
Wasser	10-25
III	10-25

- Water hazard class: Water danger class 3 (Self-assessment): extremely hazardous for water.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

Issue date: 25 April 2015		
Revision history		
Version	Date	Changes
3	11 November 2015	Section 1- 16 have been updated
4	4 April 2016	Section 2: classification and labelling, Section 11.1 Skin corrosion/irritation properties, Section 13.2 Additional information: dangerous properties of the waste, Section 14: Transport information, Section 16.4: Classification for mixtures and used evaluation method according to CLP.

16.2 Abbreviations and acronyms

ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute toxicity estimates
BCF	Bioconcentration factor
CLP	Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures
DNEL	Derived No-Effect Level
EC50	Effective concentration (50 %)
LD50	Lethal dose (50 %)
Log Pow	Partition coefficient: n-octanol/water
NOEC	No Observed Effect Concentration

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015	Page number: 11 of 12
Revision: 4 April 2016	Version: 4, supersedes version 3 from 11 November 2015

OECD	Organisation for Economic Co-operation and Development
OEL	Occupational exposure limit
PBT	Persistent, bioaccumulative and toxic substances
PNEC	Predicted No Effect Concentration
Ppm	Parts per million
REACH	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SCL	Specific concentration limit
vPvB	Very persistent and very bioaccumulative substances
WEL	Workplace exposure limit
Eye Irrit. 2	Eye irritation, Category 2: Reversible effects on the eye (irritation)
Acute Tox. 4	Acute toxicity, Category 4
Ox. Sol. 2	Oxidizing solids, Category 2
Aquatic Acute 1	Hazardous to the aquatic environment, Acute hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, Chronic hazard, Category 1
Skin Corr. 1C	Skin corrosion/irritation, Category 1: Corrosive, sub-category 1C
Eye Dam. 1	Serious eye damage, Category 1: Irreversible effects on the eye
Skin Irrit 2	Skin irritation, Category 2: Irritant
EmS	Emergency schedules

16.3 Key literature references and sources of data

REACH Regulation (consolidated version 1. 6. 2015)
 CLP Regulation (consolidated version 1. 6. 2015)
 ECHA Dissemination portal
 Safety Data Sheets of suppliers of ingredients

16.4 Classification for mixtures and used evaluation method according to CLP

According to Annex I CLP Regulation is a mixture classified as a skin irritant, with irreversible effects on the eye and dangerous for the environment. The mixture was tested on skin corrosion by OECD method 435 (In Vitro Membrane Barrier Test Method for Skin Corrosion), according to the results of the test were evaluated as a mixture of non-corrosive. By this method cannot be excluded skin irritation and effects on the eyes and therefore these risks are evaluated according to the calculation method (Annex I, section 3.2 and 3.3).

Class	Classification procedure
2.14. Oxidizing solids	Properties of the mixture -- test according to UN Handbook Test and Criteria Division 5.1 section 34.4.1 -- not classified
3.1. Acute toxicity	Calculation method (generic concentration limits) ATE of the mixture >>2000 -- not classified
3.2. Skin irritation	According to study: " Alphasorb ESP1000: The Corrositex [®] Assay" (method OECD 435) the test item was considered to be NON-CORROSIVE. ALPHASORB 8 contain less of hazardous components and are therefore also considered to be non-corrosive. Skin irritation was not tested by this method, so the mixture is classified as irritant.
3.3 Serious eye damage/Eye irritation	Calculation method (generic concentration limits)
4.1. Hazardous to the aquatic	Summation method: Table 4.1.2: Classification of a mixture

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) amended

ALPHASORB 8

Issue date: 25 April 2015

Page number: 12 of 12

Revision: 4 April 2016

Version: 4, supersedes version 3 from 11 November 2015

environment

for long-term hazards, based on summation of the concentrations of classified components
(M × 10 × Chronic 1) + Chronic 2 ≥ 25 % = Chronic 2

16.5 List of relevant hazard statements

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

16.6 Training advice

Familiarise the staff with the recommended use, the protective equipment, first aid and restrictions when handling the mixture.

16.7 Compiler of the Safety Data Sheet

This Safety Data Sheet has been compiled by EcoMole Ltd. (www.ecomole.com)

Declaration

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.