

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

### 1.1 Product identifier

Trade name or designation of the mixture    PlumeStop®  
Registration number(s)                            01-2119488894-16-0059

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

Identified uses                                    Soil and Groundwater Remediation.  
Uses advised against                            None known

### 1.3 Details of the supplier of the safety data sheet

Company name                                    RegenesiS Ltd.  
Address    Cambridge House  
Henry Street  
Bath, Somerset  
BA1 1BT  
United Kingdom  
Telephone number                                +44 (0) 1225 618161  
E-mail address                                    CustomerService@regenesiS.com

### 1.4 Emergency telephone number

General in EU                                    112 (Available 24 hours a day. SDS/Product information may not be available for the  
Emergency Service.)  
CHEMTREC                                        For Dangerous Goods Incidents ONLY (spill, leak, fire, exposure or accident), call  
CHEMTREC 24/7 at:  
International                                    (+)1-703-527-3887  
USA, Canada, Mexico                            (+)1-800-424-9300

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and is considered not to be classified as hazardous.

#### 2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Not classified as hazardous.

Hazard pictogram(s): Not applicable

Signal Word

Hazard Statement(s)

Not applicable

Precautionary Statement(s)

### 2.3 Other hazards

The mixture does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Substance Name	EC No.	CAS No.	% w/w	REACH Registration No.	Index No.	Classification
Water	231-791-2	7732-18-5	>75	N/A	N/A	Not classified as hazardous
Activated Carbon - High Density Skeleton	931-328-0	-	<25	01-2119488894-16-0059	N/A	Not classified as hazardous
Proprietary additives	-	-	≤2	-	-	-
pH modifier	-	-	< 1	-	-	-

The full text for all H-statements is displayed in Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General notes	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Following inhalation	Remove person to fresh air. Call a doctor if you feel unwell.
Following skin contact	Wash off with soap and water. If skin irritation occurs: get medical advice/attention.
Following eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs: get medical advice/attention.
Following ingestion	Rinse mouth. Call a doctor if you feel unwell.

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

Direct contact with eyes may cause temporary irritation.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, or water fog.
Unsuitable extinguishing media	None known.

### 5.2 Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed. Combustion products may include: carbon monoxide, carbon dioxide, sodium oxides, metal oxides.

### 5.3 Advice for firefighters

Special protective equipment for	Use protective equipment appropriate for surrounding materials.
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firefighters

Special firefighting procedures  
Specific methods

Move containers from fire area if you can do so without risk.  
Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to keep fire-exposed containers cool.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel  
For emergency responders

Keep unnecessary personnel away. Avoid contact with spilled material.  
Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

### 6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

### 6.3 Methods and material for containment and cleaning up

This product is miscible in water.

Large Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Shovel the material into waste container. Minimise dust generation and accumulation. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid prolonged exposure. Observe good industrial hygiene practices. Wash thoroughly after handling. Wear appropriate personal protective equipment (See Section 8).

### 7.2 Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store away from incompatible materials (see section 10 of the SDS). Protect from freezing.

### 7.3 Specific end use(s)

Soil and Groundwater Remediation

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Recommended monitoring procedures: Follow standard monitoring procedures

Derived no effect levels (DNELs):

#### Activated Carbon - High Density Skeleton

Exposure Route	Exposure Patterns	DNEL (workers)
Inhalation	Long term systemic	As no systemic toxicity hazard has been identified, there is no requirement to derive a systemic DNEL
	Short term systemic	

	Long term local	1.84 mg/m <sup>3</sup>
	Short term local	As no short term local toxicity hazard has been identified, there is no requirement to derive the DNEL
Dermal	Long term systemic	As no toxicity hazard has been identified, there is no requirement to derive a dermal DNEL
	Short term systemic	
	Long term local	
	Short term local	

Exposure Route	Exposure Patterns	DNEL (general population)
Inhalation	Long term systemic	As no systemic toxicity hazard has been identified, there is no requirement to derive a systemic DNEL
	Short term systemic	
	Long term local	0.9 mg/m <sup>3</sup>
	Short term local	As no short term local toxicity hazard has been identified, there is no requirement to derive the DNEL
Dermal	Long term systemic	As no toxicity hazard has been identified, there is no requirement to derive a dermal DNEL
	Short term systemic	
	Long term local	
	Short term local	
Oral	Long term systemic	As no toxicity hazard has been identified, there is no requirement to derive an oral DNEL
	Short term systemic	

Predicted no effect concentrations (PNECs):

#### Activated Carbon - High Density Skeleton

PNEC	Value
Aqua (freshwater)	No data available
Aqua (marine water)	No data available
STP	No data available
Sediment (freshwater)	No data available
Sediment (marine water)	No data available
Soil	10 mg/kg soil dw
Secondary poisoning	No data available

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### 8.2.2 Individual protection measures, such as personal protective equipment

General information	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Wear approved chemical safety goggles.
Skin protection	
Hand protection	Rubber, neoprene or PVC gloves are recommended. Wash hands after handling.
Other	Avoid contact with the skin. Wear suitable chemical resistant clothing.
Respiratory protection	Not normally needed. In case of insufficient ventilation, wear suitable respiratory equipment. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been

Thermal  
Hygiene measures

established), an approved respirator must be worn.  
Wear appropriate thermal protective clothing, when necessary.  
Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

### 8.2.3 Environmental exposure controls

Environmental manager must be informed of all major releases.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	Liquid
Form	Aqueous suspension
Colour	Black
Odour	Odourless
Odour threshold	No data available
pH	8-10
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	1 – 1.2
Solubility(ies)	Miscible
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	Not data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

## SECTION 10: Stability and reactivity

10.1 Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2 Chemical stability	Material is stable under normal conditions.
10.3 Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4 Conditions to avoid	Contact with incompatible materials. Keep from freezing.
10.5 Incompatible materials	Strong oxidising agents. Water reactive materials.
10.6 Hazardous decomposition products	Combustion may produce: carbon monoxide, carbon dioxide, sodium oxides, metal oxides.

## SECTION 11: Toxicological information

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## 11.1 Information on toxicological effects

### PlumeStop®

No data available on product itself. Classification determined based on toxicological data available on constituent substances.

#### Activated Carbon - High Density Skeleton

<u>Acute toxicity</u>	<u>Species</u>	<u>Test Results</u>	<u>Method</u>
Oral LD50	Rat	LD50 > 2,000 mg/kg bw	OECD 423
Inhalation LC50	Rat	LC50 > 8.5 mg/L	Equivalent or similar to OECD 403
Dermal LD50	No data available		
Skin corrosion/irritation	Rabbit	Not irritating	OECD 404
Serious eye damage/irritation	Rabbit	Not irritating	OECD 405
Respiratory or skin sensitisation	Mouse	Not sensitising to skin	OECD 429
Germ cell mutagenicity	Not considered to be mutagenic (OECD 471; OECD 473; OECD 476)		
Carcinogenicity	No data available; not considered to be carcinogenic		
Reproductive toxicity	No data available; not considered to be reprotoxic		
STOT-single exposure	Not considered to cause specific target organ toxicity via single exposure		
STOT-repeated exposure	Rat	Not considered to cause specific target organ toxicity via repeated exposure	OECD 413
Aspiration hazard	No data available; not considered to cause an aspiration hazard		

## SECTION 12: Ecological information

### 12.1 Toxicity

#### PlumeStop®

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. No data available on product itself. Classification determined based on ecotoxicological data available on constituent substances.

#### Activated Carbon - High Density Skeleton

<u>Ecotoxicological endpoint</u>	<u>Value</u>	<u>Species, Method</u>
Acute (short term toxicity): Fish	No data available; substance is highly insoluble in water indicating that aquatic toxicity is unlikely to occur	
Crustacea	No data available; substance is unlikely to cross biological membranes indicating that aquatic toxicity is unlikely to occur	
Algae/aquatic plants	No data available	
Activated sludge respiration	No data available; substance is highly insoluble in water indicating that aquatic toxicity is unlikely to occur	
Chronic (long-term toxicity): Fish	No data available	
Crustacea	No data available	

### 12.2 Persistence and biodegradability

No data is available on the degradability of this product.

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### 12.3 Bioaccumulative potential

No data is available on the bioaccumulative potential of this product.

Activated carbon – high density skeleton is also determined to have a low potential for bioaccumulation.

### 12.4 Mobility in soil

No data available of the mobility of this product.

### 12.5 Results of PBT and vPvB assessment

The constituent substances, and therefore the mixture, are not considered to be PBT or vPvB.

### 12.6 Other adverse effects

None known

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN Number	Not regulated as dangerous goods	Not regulated as dangerous goods	Not regulated as dangerous goods	Not regulated as dangerous goods
14.2 UN proper shipping name				
14.3 Transport hazard class(es) Class Subsidiary risk Label(s) Hazard No. Tunnel restriction code				
14.4 Packing group				
14.5 Environmental hazards				

### 14.6 Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code

No information available

## SECTION 15: Regulatory information

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

None identified

15.2 Chemical safety assessment

A chemical safety assessment is not available for activated carbon – high density skeleton based on the tonnage band.

## SECTION 16: Regulatory information

This SDS supersedes the SDS dated 11 October 2017

The following amendments have been made:

- SDS has been fully revised in accordance with Regulation (EU) No 453/2010 and Regulation (EC) No. 1272/2008 (EU CLP) and in accordance with new information on the constituent substances registered under Regulation (EC) 1907/2006 (EU REACH)

List of abbreviations:

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstract Service.

CEN: European Committee for Standardization (Comité Européen de Normalisation).

DNEL: Derived No-Effect Level. ECHA: European Chemical Agency.

IATA: International Air Transport Association. IBC: Intermediate Bulk Container. IMDG: International Maritime Dangerous Goods

MARPOL: International Convention for the Prevention of Pollution from Ships. PBT: Persistent, bioaccumulative, toxic.

PNEC: Predicted No-Effect Concentration.

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail. vPvB: very Persistent, very Bioaccumulative.

References:

ECHA registered substances database, accessed July 2018

<https://echa.europa.eu/registration-dossier/-/registered-dossier/15441>

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15:

Not applicable

Training information

Follow training instructions when handling this material.

Disclaimer:

Regenesis cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.