

Killgerm Drain smokes



Safety Data Sheet

according to The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019

Control of Substances Hazardous to Health Regulations 2002 (as amended). The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

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

1.1 Product identifier

Killgerm Drain smokes

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

Relevant identified uses: Airflow Marker Smoke Generator

Uses advised against: Use only as instructed

1.3. Details of the supplier of the safety data sheet

Address: Killgerm Chemicals Ltd, Wakefield Road, Ossett, WF5 9AJ

Tel: +44 (0)1924 268 450

Fax: +44 (0)1924 265 033

Email: technical@killgerm.com

1.4. Emergency telephone number

Medical professionals should use National Poisons Information Service Tel: 0870 600 6266.

Killgerm Chemicals Ltd Tel:01924 268452 (Office hours)

Non-medical professionals should seek information by contacting NHS by dialling 111.

SECTION 2: Hazards identification

2.1. Classification of the mixture according to Regulation (EC) No. 1272/2008 [CLP]

Skin Sens cat 1

H317: May cause an allergic skin reaction.

Aquatic chronic cat 3

H412: Harmful to aquatic life with long-lasting effects.

See section 16 for full text of H phrases and hazard classification of ingredients.

2.2. Label elements



GHS07

Signal Word: WARNING

Hazard statements:

H317: May cause an allergic skin reaction.

H410: Very toxic to aquatic life with long-lasting effects

Precautionary P statements:

P261: Avoid breathing dust/fume.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves and eye protection.

Response:

P302+P352: IF ON SKIN: wash with plenty of soap and water.

P333:P313: if skin irritation or rash occurs get medical advice/attention.

Disposal:

P501: Dispose of contents/container to appropriate waste disposal in accordance with local/national regulations.

2.3. Other hazards

The mixture contains potassium chloride which in contact with an acid gives off toxic gasses.

The mixture contains powder; all the organic powders may present an explosion hazard when dispersed in air.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous Components in Product

Ingredient Name	Concentration	Classification	H Phrases
White smoke dye Cas 84-54-8 EC No:201-539-6	5%W/W	Skin Sens. Cat .1	H317
Potassium chlorate Cas: 3811-04-9 EC No:223-289-7 REACH Reg: 01- 2119494917- 18-xxxx	10-20%W/W	Ox. Liq. Acute Tox 4 Acute Tox 4 Aquatic chronic	H271 H302 H332 H412 H412
Talc* Cas:14807-96-6 EC No: 238-877-9	65-75% W/W	N/A	N/A

* Substance with a workplace exposure limit

SECTION 4: First aid measures

4.1. Description of first aid measures

Eye contact: If in eyes: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If irritation continues seek medical advice.

Skin contact: Take off contaminated clothing and wash it before reuse. Wash affected area with soap and water. If skin irritation occurs, seek medical attention.

Ingestion: If Swallowed: Rinse mouth with water (do not swallow) and give 200-300 ml (half pint) of water to drink. Seek medical advice. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person.

Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If unconscious, place person in recovery position. Apply artificial respiration only if patient is not breathing but do not use mouth to mouth resuscitation. Get immediate medical advice/attention.

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

Contact with skin

- May cause redness and irritation.
- In cases of severe exposure, blistering of the skin may develop.

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

In case of doubt or if the symptoms persist, call a doctor and show them a copy of the product label/safety data sheet. In case of accident, the first aid must be provided by qualified personnel to avoid further complications.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing agents: Sand/earth; foam; water spray; carbon dioxide.

Unsuitable agents: Do not use water jets, or dry powder.

5.2. Special hazards arising from the substance or mixture

- Ignites readily.
- Contains an oxidising agent; may assist combustion.
- May form explosive dust/air mixtures.

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5.3. Advice for firefighters

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
- Special protective clothing: Wear self-contained breather apparatus (SCBA). Wear full protective clothing including chemical protection suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

- No action shall be taken involving any personal risk or without suitable training.
- Only trained and authorised personnel should carry out emergency response.
- Avoid formation of dust.
- Shut off all ignition sources
- Personal precautions for non-emergency personnel: Avoid breathing dust/fume/; Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling; Eyewash bottles should be available.
- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear chemical protection suit; Wear self-contained breathing apparatus (SCBA).

6.2. Environmental precautions

- Avoid release to the environment
- Do not allow to enter public sewers and watercourses
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities.

6.3. Methods and material for containment and cleaning up

- Do not absorb spillage in sawdust or other combustible material.
- Avoid formation of dust.
- Shut off all ignition sources.
- Take action to prevent static discharges.
- Do not allow to enter public sewers and watercourses.

Small spills: Wipe up spillage with damp absorbent cloth or towel.

Large spills: Evacuate the area and keep personnel upwind. Damp down to avoid dust generation. Absorb spillage in earth or sand. Sweep or shovel-up spillage and remove to a safe place. Place in appropriate container. Seal containers and label them.

Remove contaminated material to safe location for subsequent disposal. Ventilate the area and wash spill site after material pick-up is complete.

6.4. Reference to other sections

See section 8 for protective clothing – See section 7 for safe handling – See section 13 for disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Read the label before use.
- Prevent formation of dust.
- Take precautionary measures against static discharges.
- Ensure adequate ventilation.
- In case of inadequate ventilation wear respiratory protection.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke when using this product.
- Keep away from heat and sources of ignition.
- Avoid contact with acids and alkalis.
- Avoid release of powder to the environment.
- Take off contaminated clothing.
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before reuse.
- Eyewash bottles should be available.

Date of issue: Mar 2023

Replaces version issued: Jul 2021

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7.2. Conditions for safe storage, including any incompatibilities

- Shelf life: 2 years when stored in the original unopened sales container at ambient temperatures.
- Store in a cool, dry well-ventilated place. Keep container tightly closed.
- Keep away from combustible material.
- Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
- Keep out of reach of children.

7.3. Specific end use(s)

An airflow marking smoke generator

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:

Name	CAS No.	UK HSE EH40 workplace exposure limits
Talc	14807-96-6	Respirable dust 1 mg/m ³ (8-hour TWA)

Name	CAS	Country	Limit Value		mg/m ³
			8-hour TWA	Total inhalable dust	
White Smoke Dye	84-54-8	UK	8-hour TWA	Total inhalable dust	10
			8-hour TWA	Respirable dust	4

Name	DNEL/PNEC	Type	Value
Potassium Chlorate 3811-04-9	DNEL (inhalational)	Industry, Long Term, Systemic Effects	5.76 mg/m ³
	DNEL (dermal)	Industry, Long Term, Systemic Effects	3.5 mg/kg (bw/day)
	DNEL (inhalational)	Consumer, Long Term, Systemic Effects	300 ug/m ³
	DNEL (dermal)	Consumer, Long Term, Systemic Effects	130 ug/kg (bw/day)
	DNEL (oral)	Consumer, Long Term, Systemic Effects	60 ug/kg (bw/day)
	PNEC aqua (freshwater)		1.15 mg/l
	PNEC aqua (marine water)		1.15 mg/l
	PNEC (STP)		115 mg/l
	PNEC terrestrial (soil)		3.83g/kg

Acronyms

- DNEL: Derived No-Effect Level
- PNEC: Predicted No-Effect Level
- CAS: Chemical Abstracts Service

8.2. Exposure controls

Where exposure may occur engineering controls should be employed. A risk assessment should be carried out and the following PPE may be appropriate /required.

PPE	Item in use	Spillage
Respirators	If exposure to smoke is likely than wear suitable respiratory equipment. Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827 and EN 143 particle filter.	If exposure to smoke is likely than wear suitable respiratory equipment. Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827 and EN 143 particle filter.

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	Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK and particle filter EN 143.	Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK and particle filter EN 143.
Gloves	Protective Gloves to EN374	Protective Gloves to EN374
Overall	Not needed under normal use.	Not needed under normal use.
Eye protection	Not needed under normal use.	Not needed under normal use.

General safety and hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink, and animal feeding stuffs. Eyewash bottles should be available. Avoid release of powder to the environment. Do not empty powder into drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Off-white powder in metal pot
Odour:	Odourless.
Odour threshold:	No available data.
pH:	No available data.
Melting point/freezing point:	No available data.
Initial boiling point/boiling range:	No available data.
Flash point:	Does not flash.
Evaporation rate:	Not applicable.
Flammability:	Powder not flammable. Smoke may be flammable
Upper/lower flammability or explosive limits:	No available data.
Vapor pressure:	Not applicable.
Vapor density:	Not applicable.
Relative density:	No available data
Solubility(ies):	Partly soluble in/with water.
Partition coefficient n-octanol/water (log Kow):	No available data.
Auto-ignition temperature:	No available data.
Decomposition temperature:	No available data.
Viscosity:	Not applicable.
Explosive properties:	None.
Oxidising properties:	Contains an oxidising agent; may assist combustion.

9.2 Other Information

No further relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Not reactive under recommended conditions of storage and handling.

10.2. Chemical stability

Considered stable under normal conditions

10.3. Possibility of hazardous reactions

Reacts with combustible material.

Reacts with acids liberating toxic gas (chlorine).

10.4. Conditions to avoid

Avoid formation of dust.

Keep away from heat and sources of ignition.

Keep away from static electricity.

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10.5. Incompatible materials

Incompatible with strong acids.

Incompatible with alkalis (strong bases).

Incompatible with halogenated substances.

10.6. Hazardous decomposition products

Decomposition products may be toxic

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Classification of the product was conducted by calculation method according to regulation 1272/2008, based on the content of hazardous ingredients:

a) **acute toxicity:** Based on data available classification criteria are not met.

Chemical name	LD50 (oral, rat)	LC50 (inhalation, rat)	LD50 (dermal, rabbit)
Potassium chlorate	500 mg/kg	5 mg/l (4 hr)	NS

b) **irritation:** Based on data available, the classification criteria are not met.

c) **corrosivity:** Based on data available, classification criteria are not met.

d) **sensitisation:** May cause an allergic skin reaction. Classification based on calculation and concentration thresholds.

e) **repeated dose toxicity:** Based on data available classification criteria are not met.

f) **carcinogenicity:** Based on data available classification criteria are not met.

g) **mutagenicity:** Based on data available classification criteria are not met.

h) **reproduction toxicity:** No evidence of reproductive effects.

i) **aspiration:** No information.

STOT-single exposure: Based on data available classification criteria are not met.

STOT-repeated exposure: Based on data available classification criteria are not met.

11.2. Other Data

See section 2.3

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects. Classification based on calculation and concentration thresholds.

- Potassium chlorate

LC50 (fish) 1 g/l (4 days)

EL50 (aquatic invertebrates) 1 g/l (48 hr)

EL50 (aquatic algae) 1.9 - 500 mg/l (72 hr)

12.2. Persistence and degradability

Potassium chlorate Biodegradable.

12.3. Bioaccumulative potential

Chlorate is converted to chlorite in plants, which accumulates in cells until toxic concentrations are reached, when the plant dies.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

None known

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal of the product, empty containers and contaminated packaging must be made in accordance with the local law.

This material and/or its container must be disposed of as hazardous waste to an authorised waste collection point.

Unused product – Suggested waste codes 16 09 04

Empty packaging - Suggested waste code 15 01 10.

Hazardous Property Code(s): HP 4 Irritant; HP 14 Ecotoxic

SECTION 14: Transport information

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es).

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

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

Not applicable.

SECTION 15: Regulatory information

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

Labelling according to The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2020/878.

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

- The COSHH Regulations apply in the UK.

- The information contained in this data sheet does not constitute the user's own assessment of workplace risks as required by legislation.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

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SECTION 16: Other information

Operatives using this product should be trained in its use.

The information in this data sheet should be considered when undertaking a risk assessment under the COSHH regulations. Use only in accordance with label instructions.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Sens Skin. 1. H317: Classification based on calculation and concentration thresholds

Aquatic Chronic 3, H412: Classification based on calculation and concentration thresholds.

Ingredient classification data:

Oxidising Liquid Cat1

H271: May cause fire or explosion; strong oxidiser.

Acute Toxicity cat 4 (Oral)

H302: Harmful if swallowed

Skin sensitizer cat 1.

H317: May cause an allergic skin reaction.

Acute Toxicity cat 4 (inhalation)

H332: Harmful if inhaled

Aquatic chronic cat.3

H412: Harmful to aquatic life with long-lasting effects

Issue number (date)	Section amended
Issue (Jul 2018)	First creation.
Issue (Jul 2021)	Updated whole SDS to reflect changes to the composition, hazard classification and Regulatory framework
Issue (Mar 2023)	Updates to sections 3, 8 and 11. General formatting

This safety data sheet does not constitute a COSHH assessment.

The information contained within this data sheet is strictly for general guidance only and should not be relied upon over and above this. This data sheet is intended to provide general health and safety guidance on the handling, storage and transportation of the preparation. The information provided in this data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted by Killgerm Chemicals Limited for any loss, injury or damage arising from any failure to comply with the information and advice contained within this data sheet and/or failure to comply with the manufacturer's guidelines, product label data and any associated technical usage literature.