SprayChalk
Material Safety Data Sheet (MSDS)
Format aligned with the Occupational Safety and Health Act and MoEL Notice No. 2026-26
2026-08-05 | Version 1.5

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

1.1. Product identifier

Product form : Mixture
Product name : SprayChalk

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

1.2.1. Relevant identified uses

Industrial/professional use : Industrial; for professional use only
Use of the substance/mixture : Screening agent for horticultural greenhouses

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

Manufacturer	Manufacturer
Lumiforte EMEA B.V. Geerstraat 8 5111 PS Baarle-Nassau The Netherlands T +31 (0)13 507 53 99 safety@lumiforte.com www.lumiforte.com	Lumiforte EMEA SAS 1 Rue Gaston Monmousseau 38130 Echirolles France T +33 (0)4 76 23 20 54 safety@lumiforte.com www.lumiforte.com

1.4. Emergency telephone number

Service / organisation	Coverage / address	Emergency telephone	Availability / note
119 Emergency Medical, Fire and Rescue Service National Fire Agency	Nationwide Republic of Korea	119 (within Korea)	24 hours, 365 days; public emergency service for fire, rescue and emergency medical response. English or interpreter support can be requested.
Seoul Poison Control Center Korea University Anam Hospital	73 Goryeodae-ro Seongbuk-gu, Seoul 02841 Republic of Korea	1855-2221	Mon-Fri 09:00-17:00 KST; public poison-information service. Korean-language service. In an acute emergency call 119.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the Korean GHS criteria under MoEL Notice No. 2026-26: not classified as hazardous.

Adverse physicochemical, human health and environmental effects: no specific hazard is expected when normal industrial hygiene practices are followed.

2.2. Label elements

Hazard pictograms : None required
Signal word : None required
Hazard statements : None required
Precautionary statements : No mandatory GHS statements assigned

2.3. Other hazards

Contains trace amounts of isothiazolinone preservatives (BIT and CMIT/MIT). An allergic reaction may occur in previously sensitised persons. Avoid unnecessary skin contact and inhalation of spray or mist.

Wet spills may make floors slippery. Dried deposits may generate mineral dust during mechanical removal.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

The exact formulation is confidential. Components are shown where relevant for hazard communication or occupational exposure control. Raw-material trade names are not used.

Chemical name	Product identification	% w/w	Ingredient GHS classification / hazard information
Calcium carbonate (limestone)	CAS: 1317-65-3 EC: 215-279-6	50 - 75	Not classified
1,2-Benzisothiazol-3(2H)-one (BIT)	CAS: 2634-33-5 EC: 220-120-9	< 0.1	Acute Tox. 4 (oral); Acute Tox. 2 (inhalation, dust/mist); Skin Irrit. 2; Eye Dam. 1; Skin Sens. 1A; Aquatic Acute 1; Aquatic Chronic 1
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (CMIT/MIT)	CAS: 55965-84-9 Individual CAS: 26172-55-4 / 2682-20-4	< 0.1	Acute Tox. 3 (oral); Acute Tox. 2 (dermal/inhalation); Skin Corr. 1C; Eye Dam. 1; Skin Sens. 1A; Aquatic Acute 1 (M=100); Aquatic Chronic 1 (M=100)
Other non-hazardous ingredients and water	Proprietary mixture components	Balance	Not classified at product concentration

The concentration ranges above are public disclosure ranges and are not the exact confidential formulation. Product classification was calculated using the exact formulation and product-specific analytical data.

SECTION 4: First aid measures

4.1. Description of first aid measures

General : Never give anything by mouth to an unconscious person. If unwell, seek medical advice and show the label or this SDS where possible.
Inhalation : Move the person to fresh air and keep at rest in a position comfortable for breathing. Obtain medical advice if symptoms persist.
Skin contact : Remove contaminated clothing. Wash exposed skin with mild soap and water, then rinse with warm water. Wash contaminated clothing before reuse.

Eye contact	:	Rinse immediately and thoroughly with water. Remove contact lenses if present and easy to do. Obtain medical attention if pain or redness persists.
Ingestion	:	Rinse mouth. Do not induce vomiting. Contact a poison information service or physician if unwell.

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

The product is not expected to present a serious hazard under normal conditions of use. Sensitive individuals may develop an allergic skin reaction after contact with trace preservatives.

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	:	Foam, dry powder, carbon dioxide, water spray or sand. Select media suitable for the surrounding fire.
Unsuitable extinguishing media	:	Do not use a strong water jet.

5.2. Special hazards arising from the substance or mixture

The product is not flammable. Heating or fire may produce irritating or toxic fumes, including carbon monoxide and carbon dioxide.

5.3. Advice for firefighters

Cool exposed containers with water spray or mist. Do not enter the fire area without suitable protective equipment, including self-contained breathing apparatus and full protective clothing. Prevent contaminated firefighting water from entering drains or the environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Ventilate the affected area. Keep unnecessary personnel away. Avoid contact with skin and eyes and avoid breathing spray or mist.

6.1.2. For emergency responders

Do not intervene without suitable protective equipment. Use the personal protective equipment described in Section 8.

6.2. Environmental precautions

Avoid release to the environment. Do not allow the product to enter drains or public waters. Notify the competent authorities if a significant release reaches a sewer or surface water.

6.3. Methods and material for containment and cleaning up

Absorb spilled liquid with inert material such as clay, sand or diatomaceous earth. Collect in suitable closed containers for disposal. Wash the remaining area with water while preventing uncontrolled discharge. Wet residues can be very slippery.

6.4. Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure adequate workplace ventilation. Avoid unnecessary exposure and avoid generating aerosol or mist. Wash hands and exposed skin with mild soap and water before eating, drinking, smoking or leaving the workplace. Do not eat, drink or smoke while using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Store only in the original, tightly closed container in a well-ventilated place. Store at 0-30 °C. Protect from freezing, direct sunlight and temperatures above 30 °C.
Incompatible substances	:	Strong acids and strong bases.
Conditions to avoid	:	Temperatures below 0 °C or above 30 °C; direct sunlight.

7.3. Specific end use(s)

Professional screening agent for horticultural greenhouses. Follow the product application instructions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit has been established for the mixture. Observe applicable national limits for mineral dust and any listed ingredients. Because the product is a viscous liquid, exposure is primarily possible as spray/mist during application or as dried mineral dust during mechanical removal.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate general and, where necessary, local exhaust ventilation. Minimise aerosol formation. Provide facilities for washing hands and rinsing eyes.

8.2.2. Personal protective equipment

Eye/face protection	:	Chemical safety goggles or safety glasses where splashing is possible.
Hand protection	:	Wear suitable protective gloves. Select glove material and breakthrough time according to the task and supplier recommendations.
Skin/body protection	:	Wear suitable work clothing. Remove and wash contaminated clothing before reuse.
Respiratory protection	:	Normally not required with adequate ventilation. Use suitable respiratory protection if spray/mist or dried dust cannot be controlled.
Thermal hazards	:	No special thermal hazard expected under intended use.

8.2.3. Environmental exposure controls

Prevent uncontrolled discharge to drains, soil, surface water and groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Property	Value
Physical state	Liquid
Colour	Beige
Odour	Characteristic
Odour threshold	Not available
Melting point	Not applicable
Freezing point	0 °C
Boiling point/range	Not available
Flammability	Not flammable
Explosive properties	None
Lower/upper explosion limits	Not available
Flash point	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
pH	8-9
Kinematic viscosity	6875 mm^2/s
Dynamic viscosity	11000 mPa·s; Brookfield RV, spindle 5, 10 rpm, 20 °C
Solubility	Disperses in water; not soluble in water
Partition coefficient n-octanol/water	Not available
Vapour pressure	Not available
Density	1.6 g/cm^3
Relative vapour density	Not available
Particle characteristics	Not applicable (liquid)

9.2. Other information

No additional safety-relevant information is available. VOC content has not been measured for this product.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is not reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

No hazardous reaction is expected under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight; freezing; temperatures below 0 °C or above 30 °C.

10.5. Incompatible materials

Strong acids and strong bases.

10.6. Hazardous decomposition products

Under fire conditions: fumes, carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes

Hazard class	Assessment for SprayChalk
Acute toxicity - oral	Not classified
Acute toxicity - dermal	Not classified
Acute toxicity - inhalation	Not classified
Skin corrosion/irritation	Not classified; pH 8-9
Serious eye damage/eye irritation	Not classified
Respiratory or skin sensitisation	Not classified. Trace isothiazolinone preservatives are present; sensitised persons may react.
Germ cell mutagenicity	Not classified based on available information
Carcinogenicity	Not classified based on available information
Reproductive toxicity	Not classified based on available information
STOT - single exposure	Not classified based on available information
STOT - repeated exposure	Not classified based on available information
Aspiration hazard	Not classified; kinematic viscosity 6875 mm²/s

Available ingredient data reproduced from the source SDS

Ingredient	Toxicological data
1,2-Benzisothiazol-3(2H)-one (BIT)	Oral LD50, rat: 1193 mg/kg Dermal LD50, rat: 4115 mg/kg
CMIT/MIT reaction mass (3:1)	Oral LD50, rat: 457 mg/kg Dermal LD50, rat: >1000 mg/kg Dermal LD50, rabbit: 660 mg/kg Inhalation LC50, rat: 1.29 mg/L/4 h

11.2. Information on other hazards

No additional information is available on endocrine-disrupting properties. Based on the available data, the product does not meet the classification criteria for the listed health hazard classes.

SECTION 12: Ecological information

12.1. Toxicity

The mixture is not classified as hazardous to the aquatic environment. Ingredient data are provided below for reference.

Ingredient	Aquatic toxicity data
1,2-Benzisothiazol-3(2H)-one (BIT)	Fish LC50: 2.18 mg/L, 96 h (Oncorhynchus mykiss) Crustaceans EC50: 2.94 mg/L, 48 h Algae ErC50: 0.11 mg/L, 72 h (Pseudokirchneriella subcapitata)
CMIT/MIT reaction mass (3:1)	Fish LC50: 1.57 mg/L, 96 h; 0.19 mg/L, 96 h (Oncorhynchus mykiss) Crustaceans EC50: 0.16 mg/L and 0.34 mg/L, 48 h Algae EC50: 0.027 mg/L, 72 h (Scenedesmus capricornutum)

12.2. Persistence and degradability

Not established for SprayChalk.

12.3. Bioaccumulative potential

Not established for SprayChalk. Reported log Pow values in the source SDS: BIT 1.3; CMIT/MIT -0.486.

12.4. Mobility in soil

No product-specific information available.

12.5. Results of PBT and vPvB assessment

No product-specific assessment is available. No intentionally added component is known from the supplied source documents to meet PBT or vPvB criteria at relevant concentration.

12.6. Endocrine-disrupting properties

No additional information available.

12.7. Other adverse effects

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents and container safely in accordance with applicable local and national regulations and the instructions of an authorised waste contractor. Do not discharge product residues to drains or the environment. Empty packaging may retain product residue and should be handled accordingly.

SECTION 14: Transport information

Based on the available composition and physical-chemical data, SprayChalk is not regulated as dangerous goods under the applicable Republic of Korea domestic transport requirements. The assessment considers the Dangerous Goods Safety Management Act for road transport, the Railway Safety Act and the Regulations on Railway Transport of Dangerous Goods, the Ship Safety Act and the Regulations on Transport and Storage of Dangerous Goods by Ship, and the Aviation Safety Act and the Technical Standards for Air Transport of Dangerous Goods. The product is also not regulated as dangerous goods under IMDG or IATA.

Item	Korea domestic road/rail	IMDG / Korean sea	IATA / Korean air
14.1 UN number or ID number	Not applicable	Not applicable	Not applicable
14.2 UN proper shipping name	Not applicable	Not applicable	Not applicable

Item	Korea domestic road/rail	IMDG / Korean sea	IATA / Korean air
14.3 Transport hazard class(es)	Not applicable	Not applicable	Not applicable
14.4 Packing group	Not applicable	Not applicable	Not applicable
14.5 Marine/environmental pollutant	No	Not a marine pollutant	No
14.6 Special precautions for user	Keep containers tightly closed and securely stowed. Protect from freezing and temperatures above 30 °C.	Keep containers tightly closed and securely stowed. Protect from freezing and temperatures above 30 °C.	Keep containers tightly closed and securely stowed. Protect from freezing and temperatures above 30 °C.

SECTION 15: Regulatory information

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

- Occupational Safety and Health Act and MoEL Notice No. 2026-26, Classification, Labelling and Material Safety Data Sheet Standards.
- Act on Registration and Evaluation of Chemicals (K-REACH), Korean Existing Chemicals Inventory/List (KECI/KECL), Chemicals Control Act and Waste Control Act, as applicable.
- Chemical inventory: Based on supplier declarations and manufacturer-held inventory status information, all intentionally added components of SprayChalk are listed on, or otherwise compliant with, KECI/KECL. Sodium docusate (CAS 577-11-7) is listed as KE-32402.
- Domestic transport: Dangerous Goods Safety Management Act; Railway Safety Act and Regulations on Railway Transport of Dangerous Goods; Ship Safety Act and Regulations on Transport and Storage of Dangerous Goods by Ship; Aviation Safety Act and Technical Standards for Air Transport of Dangerous Goods.
- Current mixture assessment: not classified as hazardous under the Korean GHS criteria of MoEL Notice No. 2026-26.

15.2. Chemical safety assessment

No product-specific chemical safety assessment has been carried out.

SECTION 16: Other information

Classification method

Classification was assessed by calculation using the exact confidential formulation, the supplied raw-material SDSs and manufacturer-provided product-specific analytical upper limits for trace CIT, MIT and BIT in the base formulation. The exact formulation and analytical calculation are not reproduced in this public MSDS.

Full text of hazard statements referred to in ingredient information

Code	Hazard statement
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Hazard-class and other abbreviations

Abbreviation	Meaning
Acute Tox.	Acute toxicity
Aquatic Acute / Aquatic Chronic	Hazardous to the aquatic environment - acute hazard / long-term hazard
ATE	Acute toxicity estimate
BIT	1,2-Benzisothiazol-3(2H)-one
CAS / EC	Chemical Abstracts Service registry number / European Community number
CIT / CMIT; MIT; CMIT/MIT	5-chloro-2-methyl-2H-isothiazol-3-one; 2-methyl-2H-isothiazol-3-one; reaction mass in a 3:1 ratio
EC50 / ErC50; LC50 / LD50	Median effect concentration / median growth-rate effect concentration; median lethal concentration / median lethal dose
Eye Dam.	Serious eye damage
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IATA / IMDG / IMO	International Air Transport Association / International Maritime Dangerous Goods Code / International Maritime Organization
KECI / KECL	Korean Existing Chemicals Inventory / Korean Existing Chemicals List
K-REACH	Act on Registration and Evaluation of Chemicals
MoEL	Ministry of Employment and Labor, Republic of Korea
log Pow	Logarithm of the octanol/water partition coefficient
M-factor	Multiplying factor used for highly toxic aquatic substances
PBT / vPvB	Persistent, bioaccumulative and toxic / very persistent and very bioaccumulative
rpm	Revolutions per minute
SDS / MSDS	Safety data sheet / material safety data sheet
Skin Corr. / Skin Irrit. / Skin Sens.	Skin corrosion / skin irritation / skin sensitisation
STOT	Specific target organ toxicity
UN	United Nations
VOC	Volatile organic compounds

Training advice

Workers should be instructed in safe handling, spill response, personal protective equipment and hygienic measures before using the product.

Disclaimer

This information describes the product for health, safety and environmental purposes and is not a guarantee of product properties. It applies only to the product as supplied and may not apply when the product is used with other materials or in another process.