Reducompact
Material Safety Data Sheet (MSDS)
Format aligned with the Occupational Safety and Health Act and MoEL Notice No. 2026-26
2026-08-31 | Version 1.0

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

1.1. Product identifier

Product form : Mixture

Product name : Reducompact

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 : Shading coating 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 classification is triggered. Low concentrations of aquatic-toxic ingredients are present, so uncontrolled release should be avoided.

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 low concentrations of bronopol and isothiazolinone preservatives (BIT and CMIT/MIT). Previously sensitised persons may experience an allergic reaction. Avoid unnecessary skin contact and inhalation of spray or mist.

Wet spills may make floors very slippery.

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
3-Aminopropyltriethoxysilane	CAS: 919-30-2	0.1 - <1	Acute Tox. 4 (oral); Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1B
Ammonia, aqueous solution	CAS: 1336-21-6	<0.1	Acute Tox. 4 (inhalation); Skin Corr. 1B; Eye Dam. 1; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 2
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts	CAS: 85586-07-8	0.1 - <1	Acute Tox. 4 (oral); Skin Irrit. 2; Eye Dam. 1; Aquatic Chronic 3
Highly refined mineral oil	CAS: 64742-52-5	0.1 - <1	Asp. Tox. 1; supplier identifies the oil as highly refined
2-Bromo-2-nitropropane-1,3-diol (bronopol)	CAS: 52-51-7	<0.1	Acute Tox. 4 (oral); Skin Irrit. 2; Eye Dam. 1; Skin Sens. 1; STOT SE 3; Aquatic Acute 1 (M=10); Aquatic Chronic 2
1,2-Benzisothiazol-3(2H)-one (BIT)	CAS: 2634-33-5	<0.1	Acute Tox. 4 (oral); Acute Tox. 2 (inhalation); 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	<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)
Glyoxal	CAS: 107-22-2	<0.1	Acute Tox. 4 (oral/inhalation); Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; Muta. 2
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, the supplied raw-material SDSs and applicable country-specific mixture rules.

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

Direct contact may cause temporary eye or skin discomfort. Previously sensitised persons may react to trace preservatives. Ingestion may cause nausea or abdominal discomfort.

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 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; freezing.

7.3. Specific end use(s)

Professional shading coating 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 Republic of Korea limits for ammonia and any listed ingredient. Because the product is a viscous liquid, exposure is primarily possible as spray or mist during application.

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 protective work clothing. Remove contaminated clothing and wash before reuse.

Respiratory protection	:	Normally not required with adequate ventilation. If spray or mist cannot be controlled, use suitable respiratory protection.
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	Blue
Odour	Characteristic
Odour threshold	Not available
Melting point	Not available
Freezing point	0 °C
Boiling point/range	Not available
Flammability	Not flammable
Explosive properties	None expected
Lower/upper explosion limits	Not available
Flash point	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
pH	7-8
Kinematic viscosity	Approximately 1980.198 mm^2/s
Dynamic viscosity	Approximately 2000 mPa·s
Solubility	Not available
Partition coefficient n-octanol/water	Not available
Vapour pressure	Not available
Density	Approximately 1.01 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 Reducompact
Acute toxicity - oral	Not classified
Acute toxicity - dermal	Not classified
Acute toxicity - inhalation	Not classified
Skin corrosion/irritation	Not classified; pH 7-8 and ingredient concentrations below applicable mixture thresholds
Serious eye damage/eye irritation	Not classified; pH 7-8 and calculated ingredient contributions below applicable thresholds
Respiratory or skin sensitisation	Not classified. Low concentrations of preservatives are present; previously sensitised persons may react.
Germ cell mutagenicity	Not classified; glyoxal is below the applicable mixture classification threshold
Carcinogenicity	Not classified based on the supplied raw-material information; the mineral oil is identified by the supplier as highly refined
Reproductive toxicity	Not classified
STOT - single exposure	Not classified
STOT - repeated exposure	Not classified
Aspiration hazard	Not classified; kinematic viscosity approximately 1980.198 mm²/s and mineral oil concentration below 1%

Key ingredient assessment based on the supplied raw-material SDSs

Key ingredient group	Toxicological assessment
3-Aminopropyltriethoxysilane and ammonia	The concentrated raw materials are corrosive/irritant; their final concentrations and the product pH do not trigger mixture classification.
C12-14 alkyl sulfate surfactant	Irritating/eye-damaging in concentrate; present below the relevant mixture classification thresholds.
Bronopol, BIT and CMIT/MIT preservatives	Hazardous and sensitising in concentrate; present at low levels below product classification thresholds. Previously sensitised persons may react.
Highly refined mineral oil and glyoxal	Mineral oil is below 1% in a high-viscosity mixture; glyoxal is below the mutagenicity and sensitisation thresholds.

11.2. Information on other hazards

No additional information is available on endocrine-disrupting properties. Based on calculation with the exact formulation, 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 under the Korean GHS criteria. Low levels of aquatic-toxic preservatives and ammonia are present; avoid uncontrolled release.

Ingredient / contribution	Aquatic-hazard assessment
Ammonia	Aquatic Acute 1 at ingredient level; final ammonia concentration approximately 0.07%.
Bronopol	Aquatic Acute 1 (M=10); final concentration approximately 0.02-0.05%.
CMIT/MIT (3:1)	Aquatic Acute 1 (M=100); final concentration not more than approximately 0.00101%.
BIT and other minor preservative contributions	Aquatic Acute 1 at ingredient level; low final concentrations.
Mixture result	The Korean Aquatic Acute Category 1 threshold and the applicable chronic-hazard thresholds are not met; the mixture is not classified.

12.2. Persistence and degradability

Product-specific persistence has not been established. Several organic components are reported as biodegradable in their source SDSs.

12.3. Bioaccumulative potential

Not established for Reducompact.

12.4. Mobility in soil

No product-specific information available.

12.5. Results of PBT and vPvB assessment

No product-specific PBT or vPvB assessment is available. No supplied source document identifies an intentionally added component as PBT or vPvB at a 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 supplied composition and physical-chemical data, Reducompact is not regulated as dangerous goods under the applicable Republic of Korea domestic transport requirements. The assessment considered the Dangerous Goods Safety Management Act, Railway Safety Act and rules for rail transport of dangerous goods, Ship Safety Act and sea-dangerous-goods rules, and Aviation Safety Act and air-dangerous-goods standards. 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
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), Chemicals Control Act and Waste Control Act, as applicable.
- Domestic transport: Dangerous Goods Safety Management Act; Railway Safety Act and rules for rail transport of dangerous goods; Ship Safety Act and sea-dangerous-goods rules; Aviation Safety Act and air-dangerous-goods standards.
- 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, supplier-supported concentration ranges and the Korean GHS mixture rules under MoEL Notice No. 2026-26. The Korean Aquatic Acute Category 1 and chronic-hazard thresholds are not met; health classifications are also not triggered. The exact formulation and calculation are not reproduced in this public MSDS.

Full text of hazard statements referred to in this MSDS

Code	Hazard statement
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
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.
H412	Harmful 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 / long-term hazard
Asp. Tox.	Aspiration hazard
ATE	Acute toxicity estimate
BIT	1,2-Benzisothiazol-3(2H)-one
Bronopol	2-Bromo-2-nitropropane-1,3-diol
CAS	Chemical Abstracts Service registry number
CMIT/MIT	Reaction mass of chloromethylisothiazolinone and methylisothiazolinone (3:1)
EC50 / LC50 / LD50	Median effect concentration / median lethal concentration / median lethal dose
Eye Dam. / Eye Irrit.	Serious eye damage / eye irritation
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
log Pow	Logarithm of the octanol/water partition coefficient
M-factor	Multiplying factor used for highly toxic aquatic substances
Muta.	Germ cell mutagenicity
PBT / vPvB	Persistent, bioaccumulative and toxic / very persistent and very bioaccumulative
SDS / MSDS	Safety data sheet / material safety data sheet
Skin Corr. / Skin Irrit. / Skin Sens.	Skin corrosion / skin irritation / skin sensitisation
STOT SE	Specific target organ toxicity - single exposure
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.