SAFETY DATA SHEET

FURAVIA®

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	15.07.2025	50002681	Date of first issue: 15.07.2025

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : FURAVIA®

Manufacturer or supplier's details

Company : FMC Agro Kazakhstan LLP

Address : str. Timiryazeva, 26/29
050040 Almaty
Kazakhstan

Telephone : 1 215 / 299-6000 (Corporate of

Emergency telephone : +44 20 3885 0382 (CHEMTREC's European Regional Toll-Free Number)
1 703 / 741-5970 (CHEMTREC - International)
1 703 / 527-3887 (CHEMTREC - Alternate)

Medical Emergency Number : All other countries: +1 651 / 632-6793 (Collect)

E-mail address : SDS-Info@fmc.com

Recommended use of the chemical and restrictions on use

Recommended use : Can be used as a biostimulant for agricultural purposes only.

Restrictions on use : Use as recommended by the label.

2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 5

Acute toxicity (Inhalation) : Category 5

Acute toxicity (Dermal) : Category 5

GHS-Labeling

Signal Word : WARNING

Hazard Statements : H303 + H313 + H333 May be harmful if swallowed, in contact with skin or if inhaled.

Precautionary Statements :

Response:

P304 + P312 IF INHALED: Call a POISON CENTER/ doctor if you feel unwell.
P312 Call a POISON CENTER/ doctor if you feel unwell.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Components

Chemical name	CAS-No.	Classification	MAC value mg/m3 / TSEL value	Concentration (% w/w)
water	7732-18-5	No data available	No data available	>= 50 - < 70
glycerol	56-81-5	No data available	No data available	>= 30 - < 50
Sodium lignosulfonate	8061-51-6	No data available	MPC-STEL: 2 mg/m3 Class 3 - Moderately dangerous Data Source: KZ OEL MPC-STEL: 2 mg/m3 Class 3 - Moderately dangerous Data Source: RU OEL	>= 1 - < 10
ascorbic acid	50-81-7	Skin Irrit.2; H315 Eye Irrit.2A; H319	MPC-STEL: 2 mg/m3 Class 3 - Moderately dangerous Data Source: KZ OEL MPC-STEL: 2 mg/m3 Class 3 - Moderately dangerous Data Source: RU OEL	>= 0,1 - < 1
sodium chloride	7647-14-5	Acute Tox.5; H303	MPC-STEL: 5 mg/m3 Class 3 - Moderately dangerous Data Source: KZ OEL MPC-STEL: 5 mg/m3 Class 3 - Moderately dangerous Data Source: RU	>= 0,1 - < 1

			OEL	
potassium sulfate	7778-80-5	Acute Tox.5; H303 Acute Tox.5; H313 Eye Irrit.2A; H319	MPC-STEL: 10 mg/m3 Class 3 - Moderately dangerous Data Source: KZ OEL MPC-STEL: 10 mg/m3 Class 3 - Moderately dangerous Data Source: RU OEL	>= 0,1 - < 1
Magnesium chloride, hexahydrate	7791-18-6	Acute Tox.5; H313	MPC-STEL: 2 mg/m3 Class 3 - Moderately dangerous Data Source: KZ OEL MPC-STEL: 2 mg/m3 Class 3 - Moderately dangerous Data Source: RU OEL	>= 0,1 - < 1
Calcium chloride, dihydrate	10035-04-8	Acute Tox.5; H303 Eye Irrit.2A; H319	MPC-STEL: 2 mg/m3 Class 3 - Moderately dangerous, Substances which require special skin and eye protection Data Source: KZ OEL MPC-STEL: 2 mg/m3 Class 3 - Moderately dangerous, Substances which require special skin and eye protection Data Source: RU OEL	>= 0,1 - < 1
Xanthan gum	11138-66-2	No data available	TSEL: 10 mg/m3 Data Source: RU TSEL	>= 0,1 - < 1

magnesium oxide	1309-48-4	No data available	MPC-STEL: 4 mg/m3 Class 4 - Low hazard Data Source: KZ OEL MPC-STEL: 4 mg/m3 Class 4 - Low hazard Data Source: RU OEL	< 0,1
Quartz (SiO2)	14808-60-7	Carc.1A; H350 STOT RE1; H372 (Lungs) STOT RE2; H373 (Immune system, Kidney)	MPC-TWA: 1 mg/m3 Class 2 - Highly dangerous, aerosols of predominantly fibrogenic action Data Source: KZ OEL MPC-STEL: 3 mg/m3 Class 2 - Highly dangerous, aerosols of predominantly fibrogenic action Data Source: KZ OEL MPC-TWA: 1 mg/m3 aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous Data Source: RU OEL MPC-STEL: 3 mg/m3 aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous Data Source: RU OEL	< 0,1

For explanation of abbreviations see section 16.

4. FIRST AID MEASURES

General advice	:	Do not leave the victim unattended.
If inhaled	:	Remove to fresh air. If unconscious, place in recovery position and seek medical advice. If experiencing any discomfort, immediately remove from exposure. Get medical attention if discomfort does not disappear.
In case of skin contact	:	If on clothes, remove clothes. If on skin, rinse well with water. Wash off with soap and plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	:	Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.
Most important symptoms and effects, both acute and delayed	:	May be harmful if swallowed, in contact with skin or if inhaled. May be harmful if swallowed, in contact with skin or if inhaled.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection and use the recommended protective clothing Avoid inhalation, ingestion and contact with skin and eyes. If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	:	Treat symptomatically. Immediate medical attention is required in case of ingestion.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point	:	> 100 °C
Ignition temperature	:	No data available
Upper explosion limit / Upper flammability limit	:	not determined

Lower explosion limit / Lower flammability limit	:	not determined
Flammability (liquids)	:	Not expected to be ignitable
Suitable extinguishing media	:	Dry chemical, CO2, water spray or regular foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	Do not spread spilled material with high-pressure water streams. High volume water jet
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Fire may produce irritating, corrosive and/or toxic gases. Carbon oxides Sulfur oxides
Further information	:	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Use personal protective equipment. If it can be safely done, stop the leak. Do not touch or walk through the spilled material. Never return spills in original containers for re-use. Mark the contaminated area with signs and prevent access to unauthorized personnel. Only qualified personnel equipped with suitable protective equipment may intervene.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the ap-

plication area.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : The product is stable under normal conditions of warehouse storage.
Protect from heat and direct sunlight.
Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

Further information on storage stability : No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Sodium lignosulfonate	8061-51-6	MPC-STEL (aerosol)	2 mg/m3	RU OEL
		Further information: Class 3 - Moderately dangerous		
		MPC-STEL (aerosol)	2 mg/m3	KZ OEL
		Further information: Class 3 - Moderately dangerous		
ascorbic acid	50-81-7	MPC-STEL (aerosol)	2 mg/m3	RU OEL
		Further information: Class 3 - Moderately dangerous		
		MPC-STEL (aerosol)	2 mg/m3	KZ OEL
		Further information: Class 3 - Moderately dangerous		
sodium chloride	7647-14-5	MPC-STEL (aerosol)	5 mg/m3	RU OEL
		Further information: Class 3 - Moderately dangerous		
		MPC-STEL (aerosol)	5 mg/m3	KZ OEL
		Further information: Class 3 - Moderately dangerous		

potassium sulfate	7778-80-5	MPC-STEL (aerosol)	10 mg/m3	RU OEL
		Further information: Class 3 - Moderately dangerous		
		MPC-STEL (aerosol)	10 mg/m3	KZ OEL
		Further information: Class 3 - Moderately dangerous		
Magnesium chloride, hexahydrate	7791-18-6	MPC-STEL (aerosol)	2 mg/m3	RU OEL
		Further information: Class 3 - Moderately dangerous		
		MPC-STEL (aerosol)	2 mg/m3	KZ OEL
		Further information: Class 3 - Moderately dangerous		
Calcium chloride, dihydrate	10035-04-8	MPC-STEL (aerosol)	2 mg/m3	RU OEL
		Further information: Class 3 - Moderately dangerous, Substances which require special skin and eye protection		
		MPC-STEL (aerosol)	2 mg/m3	KZ OEL
		Further information: Class 3 - Moderately dangerous, Substances which require special skin and eye protection		
Xanthan gum	11138-66-2	TSEL (aerosol)	10 mg/m3	RU TSEL
magnesium oxide	1309-48-4	MPC-STEL (aerosol)	4 mg/m3	RU OEL
		Further information: Class 4 - Low hazard		
		MPC-STEL (aerosol)	4 mg/m3	KZ OEL
		Further information: Class 4 - Low hazard		
Quartz (SiO2)	14808-60-7	MPC-TWA (Aerosol - total mass)	1 mg/m3	RU OEL
		Further information: aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous		
		MPC-STEL (Aerosol - total mass)	3 mg/m3	RU OEL
		Further information: aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous		
		TWA (Respirable dust)	0,1 mg/m3	2004/37/EC
		MPC-TWA (aerosol)	1 mg/m3	KZ OEL
		Further information: Class 2 - Highly dangerous, aerosols of predominantly fibrogenic action		
		MPC-STEL (total aerosols)	3 mg/m3	KZ OEL

		Further information: Class 2 - Highly dangerous, aerosols of predominantly fibrogenic action

Personal protective equipment

Respiratory protection : In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

Hand protection

Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective measures : Plan first aid action before beginning work with this product.
Always have on hand a first-aid kit, together with proper instructions.
Wear suitable protective equipment.
When using do not eat, drink or smoke.
In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use.

Hygiene measures : Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Color : Light brown to dark brown

Odor : Fermented

Odor Threshold : No data available

pH : not determined

Melting point/freezing point : not determined

Boiling point/boiling range : not determined

Flash point	:	> 100 °C
Flammability (liquids)	:	Not expected to be ignitable
Self-ignition	:	not auto-flammable
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Vapor pressure	:	Not available for this mixture.
Relative vapor density	:	not determined
Relative density	:	No data available
Density	:	1,16 g/cm3
Bulk density	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	Not available for this mixture.
Autoignition temperature	:	No data available
Decomposition temperature	:	not determined
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	not determined
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Particle size	:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.

Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	Heat, flames and sparks. Avoid formation of aerosol.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	:	Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

May be harmful if swallowed, in contact with skin or if inhaled.

May be harmful if swallowed, in contact with skin or if inhaled.

Product:

Acute oral toxicity	:	LD50 (Rat): > 2.000 mg/kg Remarks: Estimated data
Acute inhalation toxicity	:	LC50 (Rat): > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: Estimated data
Acute dermal toxicity	:	LD50 (Rat): > 2.000 mg/kg Remarks: Estimated data

Components:

water:

Acute oral toxicity	:	Remarks: No data available
Acute inhalation toxicity	:	Remarks: No data available

glycerol:

Acute oral toxicity	:	LD50 (Rat, female): 11.500 mg/kg
Acute inhalation toxicity	:	LC0 (Rat, male): 11 mg/l Exposure time: 1 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 (Guinea pig, male and female): 56.750 mg/kg

Sodium lignosulfonate:

Acute oral toxicity	:	LD50 (Mouse): 6.030 mg/kg

ascorbic acid:

Acute oral toxicity	:	LD50 (Rat): 11.290 mg/kg

sodium chloride:

Acute oral toxicity : LD50 (Rat, male): 3.550 mg/kg

Acute inhalation toxicity : LC0 (Rat, male): > 8,4 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Remarks: no mortality

Acute dermal toxicity : LD50 (Rabbit): 10.000 mg/kg

potassium sulfate:

Acute oral toxicity : LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 425
Remarks: Based on data from similar materials
no mortality

Acute inhalation toxicity : LC0 (Rat, male): 1,2 mg/l
Exposure time: 8 h
Test atmosphere: dust/mist
Remarks: Based on data from similar materials
no mortality

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402
Symptoms: irritant effects
Remarks: no mortality

Magnesium chloride, hexahydrate:

Acute oral toxicity : LD50 (Rat, male and female): > 5.000 mg/kg
Method: OECD Test Guideline 423

LD50 (Rat): 8.100 mg/kg

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402

Calcium chloride, dihydrate:

Acute oral toxicity : LD50 (Rat, male): 2.120 mg/kg
Method: OECD Test Guideline 401
Remarks: mortality

LD50 (Rat, female): 2.361 mg/kg
Method: OECD Test Guideline 401
Remarks: mortality

LD50 (Rat, male and female): 2.301 mg/kg
Method: OECD Test Guideline 401
Symptoms: Lethargy, Necrosis, Gastrointestinal disturbance, respiratory tract irritation
Remarks: mortality

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5.000 mg/kg
Remarks: no mortality

Xanthan gum:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 21 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Quartz (SiO2):

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5,01 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 436
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.
Based on available data, the classification criteria are not met.

Product:

Remarks : Not expected to be irritating to skin.

Components:

glycerol:

Species : Rabbit
Result : No skin irritation

Sodium lignosulfonate:

Remarks : May cause skin irritation and/or dermatitis.

ascorbic acid:

Result : Skin irritation

sodium chloride:

Species : Rabbit
Result : No skin irritation

potassium sulfate:

Species	:	reconstructed human epidermis (RhE)
Method	:	Regulation (EC) No. 440/2008, Annex, B.46
Result	:	No skin irritation

Magnesium chloride, hexahydrate:

Species	:	human keratinocytes
Method	:	Regulation (EC) No. 440/2008, Annex, B.46
Result	:	No skin irritation

Calcium chloride, dihydrate:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Xanthan gum:

Species	:	Rabbit
Result	:	No skin irritation

Quartz (SiO2):

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
Remarks	:	Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.
Based on available data, the classification criteria are not met.

Product:

Remarks	:	Not expected to be irritating to eyes.

Components:

glycerol:

Species	:	Rabbit
Result	:	No eye irritation

Sodium lignosulfonate:

Remarks	:	May irritate eyes.

ascorbic acid:

Result	:	Eye irritation

sodium chloride:

Species	:	Rabbit
Result	:	No eye irritation

potassium sulfate:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Species	:	Bovine cornea
Result	:	Irritation to eyes, reversing within 21 days
Method	:	OECD Test Guideline 437

Magnesium chloride, hexahydrate:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Calcium chloride, dihydrate:

Species	:	Rabbit
Result	:	Irritation to eyes, reversing within 21 days
Method	:	OECD Test Guideline 405

Xanthan gum:

Species	:	Rabbit
Result	:	No eye irritation

Quartz (SiO2):

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405
Remarks	:	Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Skin sensitization

Based on available data, the classification criteria are not met.

Respiratory sensitization

Not classified based on available information.

Respiratory sensitization

Based on available data, the classification criteria are not met.

Product:

Remarks	:	Not expected to cause skin sensitisation.

Components:

potassium sulfate:

Test Type	:	Local lymph node assay (LLNA)

Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitization.
Remarks	:	Based on data from similar materials

Magnesium chloride, hexahydrate:

Test Type	:	Maximization Test
Routes of exposure	:	Dermal
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitization.

Xanthan gum:

Species	:	Guinea pig
Result	:	Does not cause skin sensitization.

Quartz (SiO2):

Test Type	:	Local lymph node assay (LLNA)
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitization.
Remarks	:	Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.
Based on available data, the classification criteria are not met.

Product:

Germ cell mutagenicity - Assessment	:	Contains no ingredient listed as a mutagen

Components:

glycerol:

Genotoxicity in vitro	:	Test Type: reverse mutation assay Result: negative

potassium sulfate:

Genotoxicity in vitro	:	Test Type: gene mutation test Method: OECD Test Guideline 476 Result: negative Remarks: Based on data from similar materials Test Type: reverse mutation assay Method: OECD Test Guideline 471 Result: negative Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

Magnesium chloride, hexahydrate:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

Calcium chloride, dihydrate:

Genotoxicity in vitro : Test Type: reverse mutation assay
Metabolic activation: Metabolic activation
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

Quartz (SiO2):

Genotoxicity in vitro : Test Type: reverse mutation assay
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Rat
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Not classified based on available information.
Based on available data, the classification criteria are not met.

Product:

Carcinogenicity - Assessment : Contains no ingredient listed as a carcinogen

Components:

glycerol:

Species : Rat
Application Route : Oral
Exposure time : 2 years Years
Result : negative

potassium sulfate:

Species	:	Rat, male
Application Route	:	Oral
Exposure time	:	52 weeks
Dose	:	42, 256, 1527 mg/kg bw/day
NOAEL	:	256 mg/kg bw/day
LOAEL	:	1.527 mg/kg bw/day
Method	:	OECD Test Guideline 453
Result	:	negative
Remarks	:	Based on data from similar materials
Carcinogenicity - Assessment	:	Weight of evidence does not support classification as a carcinogen

Magnesium chloride, hexahydrate:

Species	:	Mouse, male and female
Application Route	:	Oral
Exposure time	:	96 weeks
Dose	:	0, .5, 2 %
NOAEL	:	2.810 mg/kg bw/day
Method	:	OECD Test Guideline 453
Result	:	negative
Carcinogenicity - Assessment	:	Weight of evidence does not support classification as a carcinogen

Xanthan gum:

Species	:	Dog, male and female
Application Route	:	Ingestion
Result	:	negative
Species	:	Rat, male and female
Application Route	:	Ingestion
Result	:	negative

Quartz (SiO2):

Carcinogenicity - Assessment	:	Human carcinogen.

Reproductive toxicity

Not classified based on available information.
Based on available data, the classification criteria are not met.

Product:

Reproductive toxicity - Assessment	:	Contains no ingredient listed as toxic to reproduction

Components:

glycerol:

Effects on fertility	:	Test Type: Two-generation study Species: Rat Application Route: Oral Result: negative
Effects on fetal development	:	Test Type: Two-generation study Species: Rat Application Route: Oral Result: negative

potassium sulfate:

Effects on fertility	:	Species: Rat, male and female Application Route: Oral Dose: 0, 50, 750, and 1,500 mg/kg/d General Toxicity Parent: NOAEL: > 1.500 mg/kg bw/day Method: OECD Test Guideline 422 Result: negative
Effects on fetal development	:	Species: Rat Application Route: Oral Dose: 0, 50, 750, 1500 mg/kg bw/day General Toxicity Maternal: NOAEL: > 1.500 mg/kg bw/day Method: OECD Test Guideline 422 Result: negative
Reproductive toxicity - Assessment	:	Weight of evidence does not support classification for reproductive toxicity

Magnesium chloride, hexahydrate:

Effects on fertility	:	Species: Rat, male and female Application Route: Oral Dose: 250, 500, 1000 mg/kg bw/day General Toxicity Parent: NOAEL: > 1.000 mg/kg body weight General Toxicity F1: NOAEL: > 1.000 mg/kg body weight Method: OECD Test Guideline 422 Result: negative
Effects on fetal development	:	Test Type: Pre-natal Species: Rat Application Route: Oral Dose: 200, 400, 800 mg/kg bw/day General Toxicity Maternal: NOAEL: > 800 mg/kg body weight Teratogenicity: NOAEL: > 800 mg/kg body weight Method: OECD Test Guideline 414 Result: negative
Reproductive toxicity - Assessment	:	Weight of evidence does not support classification for reproductive toxicity

Calcium chloride, dihydrate:

Effects on fetal development	:	Species: Rabbit Application Route: Oral Dose: 1.69, 7.85, 35.6, 169 mg/kg/d

Duration of Single Treatment: 13 d
General Toxicity Maternal: NOAEL: > 169 mg/kg bw/day
Embryo-fetal toxicity.: NOAEL: > 169 mg/kg bw/day
Result: negative

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

Xanthan gum:

Effects on fertility : Test Type: Three-generation study
Species: Rat, male and female
Application Route: Ingestion
General Toxicity F2: NOAEL: 500 mg/kg body weight
Fertility: NOAEL Parent: 500 mg/kg body weight
Symptoms: No effects on fertility., No effects on fetal development.

Fertility: NOAEL F1: 500 mg/kg body weight

STOT-single exposure

Not classified based on available information.
Based on available data, the classification criteria are not met.

STOT-repeated exposure

Not classified based on available information.
Based on available data, the classification criteria are not met.

Components:

potassium sulfate:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Magnesium chloride, hexahydrate:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Calcium chloride, dihydrate:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Quartz (SiO2):

Routes of exposure : Inhalation
Target Organs : Lungs
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

Routes of exposure : Inhalation
Target Organs : Immune system, Kidney
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Repeated dose toxicity

Components:

glycerol:

Species	:	Rat
LOAEL	:	1 mg/kg
Application Route	:	Inhalation
Exposure time	:	14 d
Dose	:	0, 1, 1.93, 3.91 mg/L
Symptoms	:	respiratory tract irritation, Fatality

Species	:	Rat
NOAEL	:	0,165 mg/l
LOAEL	:	0,662 mg/l
Application Route	:	Inhalation
Exposure time	:	13 w
Dose	:	0, 0.033, 0.165, 0.662 mg/L
Symptoms	:	respiratory tract irritation

potassium sulfate:

Species	:	Rat, male
NOAEL	:	256 mg/kg
LOAEL	:	1.527 mg/kg
Application Route	:	Oral
Exposure time	:	52 weeks
Dose	:	42, 256, 1527 mg/kg bw/day
Method	:	OECD Test Guideline 453
Remarks	:	Based on data from similar materials

Species	:	Rat, male and female
NOAEL	:	1.500 mg/kg
Application Route	:	Oral
Exposure time	:	28 - 53 d
Dose	:	0, 50, 750, and 1,500mg/kg/day
Method	:	OECD Test Guideline 422

Magnesium chloride, hexahydrate:

Species	:	Rat, male and female
NOAEL	:	> 1.000 mg/kg
Application Route	:	Oral
Exposure time	:	54 d
Dose	:	250, 500, 1000 mg/kg bw/day
Method	:	OECD Test Guideline 422

Quartz (SiO2):

Species	:	Rat
LOAEC	:	0,0025 mg/l
Application Route	:	Inhalation
Exposure time	:	90 day
Method	:	OECD Test Guideline 413
Target Organs	:	Lungs
Remarks	:	Based on data from similar materials

Aspiration toxicity

Not classified based on available information.
Based on available data, the classification criteria are not met.

Experience with human exposure

Components:

potassium sulfate:

Ingestion : Symptoms: Vomiting, Gastrointestinal disturbance

Further information

Product:

Remarks : The product contains biologically active material. Hazards to human health which would require classification are not expected, but it is recommended to handle the product with care and to avoid unnecessary exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : The product is not expected to be toxic to fish, plants, algae, aquatic invertebrates, birds, mammals, insects and soil micro- and macroorganisms at a level which would require classification.

Chronic aquatic toxicity : The product is not expected to be toxic to fish, plants, algae, aquatic invertebrates, birds, mammals, insects and soil micro- and macroorganisms at a level which would require classification.

Components:

water:

Toxicity to fish : Remarks: No data available

glycerol:

Toxicity to fish : LC50 (Fish): 885 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.955 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Scenedesmus capricornutum (fresh water algae)): 2.900 mg/l
Exposure time: 192 h

Toxicity to microorganisms	:	EC10 (Pseudomonas putida): 10.000 mg/l Exposure time: 16 h

Sodium lignosulfonate:

Toxicity to fish	:	EC50 (Danio rerio (zebra fish)): > 1.000 mg/l Exposure time: 96 h Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1.000 mg/l Exposure time: 48 h Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	EC50 (Scenedesmus subspicatus): > 600 mg/l Exposure time: 72 h Remarks: Based on data from similar materials

sodium chloride:

Toxicity to fish	:	LC50 (Fish): 5.840 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1.900 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Lemna minor (duckweed)): 6.870 mg/l Exposure time: 96 h
Toxicity to fish (Chronic toxicity)	:	EC10: 252 mg/l Exposure time: 33 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EC10 (Daphnia pulex (Water flea)): 314 mg/l Exposure time: 21 d
Toxicity to microorganisms	:	EC10: 5.000 mg/l Test Type: Respiration inhibition

potassium sulfate:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 680 mg/l Exposure time: 96 h Test Type: static test
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia magna (Water flea)): 720 mg/l Exposure time: 48 h Test Type: static test
Toxicity to algae/aquatic plants	:	NOEC (Chlorella vulgaris (Fresh water algae)): 100 mg/l Exposure time: 18 d Test Type: static test Remarks: Based on data from similar materials EC50 (Chlorella vulgaris (Fresh water algae)): 2.700 mg/l Exposure time: 18 d

Test Type: static test
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l

Magnesium chloride, hexahydrate:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 541 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 140 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 100 mg/l
Exposure time: 3 d
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia magna (Water flea)): 82 mg/l
Exposure time: 21 d
Test Type: semi-static test

Toxicity to microorganisms : EC50 (activated sludge): > 900 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209

Calcium chloride, dihydrate:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4.630 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 2.400 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (algae)): 2.900 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50 (Daphnia magna (Water flea)): 610 mg/l
Exposure time: 21 d

Xanthan gum:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 490 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 980 mg/l

aquatic invertebrates | Exposure time: 48 h

Quartz (SiO2):

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): > 10.000 mg/l
Exposure time: 72 h

Persistence and degradability

Product:

Biodegradability : Remarks: The product/substance is expected to be readily biodegradable.

Components:

glycerol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 94 %
Exposure time: 24 h

Sodium lignosulfonate:

Biodegradability : Result: Not readily biodegradable.
Remarks: Based on data from similar materials

Xanthan gum:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 88 %
Exposure time: 28 d
Method: OECD Test Guideline 301E

Quartz (SiO2):

Biodegradability : Result: Not biodegradable

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Components:

glycerol:

Partition coefficient: n-octanol/water : log Pow: -1,75 (25 °C)
pH: 7,4

potassium sulfate:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Xanthan gum:

Bioaccumulation : Remarks: Does not bioaccumulate.

Quartz (SiO2):

Bioaccumulation : Remarks: Does not bioaccumulate.

Mobility in soil

Product:

Distribution among environmental compartments : Remarks: The product is not expected to be mobile in soils.

Other adverse effects

Product:

Additional ecological information : No data available

Hygienic standards:

(Allowable concentration in air, water, including fishery waters, soil)

Components	Air	Water	Soil	Data Source
glycerol 56-81-5	TSEL: 0,1 mg/m3	MPC: 1 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary - violation of environmental conditions: changing trophic water bodies fishery; hydrochemical parameters: oxygen, nitrogen, phosphorus, pH, impaired self-purification of water bodies of water fishery: BOD5 (biochemical oxygen demand for 5 days), the number of saprophytic microflora Hazard class: 4 MPC: 0,5 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary and toxicological effects Hazard class: 3	No data available	List 2 List 4 List 5

		MAC: 0,5 mg/l Limiting health hazard indicator: general sanitary Hazard class: Class 4 - low hazard		
Sodium lignosulfonate 8061-51-6	TSEL: 0,5 mg/m3	MPC: 3 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary and toxicological effects Hazard class: 4 MPC: 3 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 4	No data available	List 2 List 5
ascorbic acid 50-81-7	TSEL: 0,5 mg/m3	No data available	No data available	List 2
sodium chloride 7647-14-5	MPC - average: 0,15 mg/m3 Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous MPC - maximum: 0,5 mg/m3 Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous TSEL: 0,15 mg/m3	MPC: 300 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary and toxicological effects Hazard class: 4e MPC: 11900 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 4	No data available	List 1 List 2 List 5
potassium sulfate 7778-80-5	MPC - maximum: 0,3 mg/m3 Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous MPC - average:	No data available	No data available	List 1

	0,1 mg/m3 Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous			
Magnesium chloride, hexahydrate 7791-18-6	TSEL: 0,1 mg/m3	No data available	No data available	List 2
Calcium chloride, dihydrate 10035-04-8	MPC - maximum: 0,03 mg/m3 (Calcium) Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous MPC - average: 0,01 mg/m3 (Calcium) Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous	No data available	No data available	List 1
Xanthan gum 11138-66-2	TSEL: 0,15 mg/m3	MPC: 0,5 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary - violation of environmental conditions: changing trophic water bodies fishery; hydrochemical parameters: oxygen, nitrogen, phosphorus, pH, impaired self-purification of water bodies of water fishery: BOD5 (biochemical oxygen demand for 5 days), the number of saprophytic microflora Hazard class: 3 MAC:	No data available	List 2 List 4 List 5

		1 mg/l Limiting health hazard indicator: organoleptic; gives colour to water Hazard class: Class 4 - low hazard		
magnesium oxide 1309-48-4	MPC - maximum: 0,4 mg/m3 Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous MPC - average: 0,05 mg/m3 Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous	No data available	No data available	List 1
Quartz (SiO2) 14808-60-7	MPC - maximum: 0,3 mg/m3 Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous MPC - average: 0,1 mg/m3 Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous	MPC: 10 Milligrams per cubed decimeter Limiting health hazard indicator: organoleptic Hazard class: 3	No data available	List 1 List 5

For explanation of abbreviations see section 16.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging	:	Empty remaining contents. Triple rinse containers. Do not re-use empty containers. Packaging that is not properly emptied must be disposed of as the unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

ADR
Not regulated as a dangerous good

UNRTDG
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Special precautions for user

Remarks	:	Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

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

The ingredients of this product are reported in the following inventories:

TCSI	:	Not in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
AIIC	:	Not in compliance with the inventory
DSL	:	This product contains chemical substance(s) exempt from CEPA DSL Inventory requirements. It is regulated as a pesticide subject to Pest Control Products Act (PCPA) requirements. Read the PCPA label, authorized under the Pest Control Products Act, prior to using or handling this pest control product.
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory

KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
TECI	:	Not in compliance with the inventory

16. OTHER INFORMATION

Full text of H-Statements

H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Carc.	:	Carcinogenicity
Eye Irrit.	:	Eye irritation
Skin Irrit.	:	Skin irritation
STOT RE	:	Specific target organ toxicity - repeated exposure
2004/37/EC	:	Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens, mutagens or reprotoxic substances at work - Annex III
KZ OEL	:	Kazakhstan. Order of the Ministry of Health No. KP DCM-70, Annex 2, Table 1 and Annex 3, Table 1 & 7 Maximum permissible concentration (MPC) of harmful substances in the air of the working area
RU OEL	:	SanPiN 1.2.3685-21 Table 2.1 Maximum permissible concentrations (MPC) of pollutants in the air of the working area
RU TSEL	:	SanPiN 1.2.3685-21 Table 2.2 Tentative Safe Exposure Levels (TSELs) of Pollutants in the Air of the Working Area
2004/37/EC / TWA	:	Long term exposure limit
KZ OEL / MPC-STEL	:	Maximum Permissible Concentration - Short Term Exposure
KZ OEL / MPC-TWA	:	Maximum Permissible Concentration - Time Weighted Average
RU OEL / MPC-STEL	:	Maximum Permissible Concentration - Short Term Exposure
RU OEL / MPC-TWA	:	Maximum Permissible Concentration - Time Weighted Average
RU TSEL / TSEL	:	TSEL value
List 1	:	SanPiN 1.2.3685-21 Table 1.1 Maximum permissible concentration (MPC) of pollutants in the air of urban and rural settlements
List 2	:	SanPiN 1.2.3685-21 Table 1.2 Tentative Safe Exposure Lev-

		els (TSEL) of pollutants in the air of urban and rural settlements
List 4	:	SanPiN 1.2.3685-21 Table 3.13 Maximum permissible concentrations (MPC) of chemicals in the water of drinking systems of centralized, including hot, and non-centralized water supply, water of underground and surface water bodies of domestic drinking and cultural and domestic water use, water of swimming pools, water parks
List 5	:	Order of the Russian Federal Fisheries Agency "Standards of maximum permissible concentrations of harmful substances in fishery water bodies"

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

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