

# SAFETY DATA SHEET

## GRANSTAR® MEGA



Version	Revision Date:	SDS Number:	Date of last issue: -
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### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : GRANSTAR® MEGA

#### 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 : Herbicide

Restrictions on use : Use as recommended by the label.

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### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Inhalation) : Category 5

Skin irritation : Category 3

Skin sensitization : Category 1

Specific target organ toxicity - : Category 2 (Thyroid, Nervous system)  
repeated exposure

Short-term (acute) aquatic : Category 1  
hazard

Long-term (chronic) aquatic : Category 1  
hazard




#### GHS-Labeling

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Hazard pictograms :   

Signal Word : WARNING

Hazard Statements : H316 Causes mild skin irritation.  
H317 May cause an allergic skin reaction.  
H333 May be harmful if inhaled.  
H373 May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**  
P260 Do not breathe dust.  
P273 Avoid release to the environment.  
P280 Wear protective gloves.  
**Response:**  
P304 + P312 IF INHALED: Call a POISON CENTER/ doctor if you feel unwell.  
P314 Get medical advice/ attention if you feel unwell.  
P391 Collect spillage.

### 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/m <sup>3</sup> / TSEL value	Concentration (% w/w)
tribenuron-methyl (ISO)	101200-48-0	Acute Tox.5; H333 Skin Sens.1; H317 STOT RE2; H373 (Thyroid, Nervous sys- tem) Aquatic Acute1; H400 Aquatic Chronic1; H410	No data available	>= 50 - < 70
thifensulfuron-methyl (ISO)	79277-27-3	Acute Tox.5; H333 Acute Tox.5;	No data available	>= 20 - < 25

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		H313 Aquatic Acute1; H400 Aquatic Chronic1; H410		
kaolin	1332-58-7	Acute Tox.5; H333	No data available	$\geq 10 - < 20$
Alkylated Naphthalene Sul- fonate Sodium Salt	68425-94-5	Eye Irrit.2A; H319 Aquatic Acute3; H402 Aquatic Chronic3; H412	No data available	$\geq 2,5 - < 10$
Lignosulfonic acid, ethoxylat- ed, sodium salts	68611-14-3	Skin Irrit.2; H315 Eye Irrit.2A; H319 STOT SE3; H335 (Respiratory system)	No data available	$\geq 1 - < 10$
Sodium lignosulfonate	8061-51-6	No data available	MPC-STEL: 2 mg/m3 Class 3 - Moder- ately dangerous Data Source: KZ OEL  MPC-STEL: 2 mg/m3 Class 3 - Moder- ately dangerous Data Source: RU OEL	$\geq 1 - < 10$
Sodium salt of polymer of formaldehyde / naphtha- lenesulfonic acid	9084-06-4	Acute Tox.5; H303	No data available	$\geq 1 - < 10$
magnesium distearate	557-04-0	STOT SE3; H335 (Respiratory system)	TSEL: 2 mg/m3 Data Source: KZ TSEL  TSEL: 2 mg/m3 Data Source: RU TSEL	$\geq 0,1 - < 1$
sodium benzoate	532-32-1	Acute Tox.5; H303 Acute Tox.5; H313 Eye Irrit.2A; H319 Aquatic	MPC-STEL: 5 mg/m3 Class 3 - Moder- ately dangerous Data Source: KZ OEL	$\geq 0,1 - < 0,25$

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		Acute3; H402	MPC-STEL: 5 mg/m <sup>3</sup> Class 3 - Moderately dangerous Data Source: RU OEL	
sodium sulphate	7757-82-6	Acute Tox.5; H303	MPC-STEL: 10 mg/m <sup>3</sup> Class 4 - Low hazard Data Source: KZ OEL  MPC-STEL: 10 mg/m <sup>3</sup> Class 4 - Low hazard Data Source: RU OEL	< 0,1
sodium chloride	7647-14-5	Acute Tox.5; H303	MPC-STEL: 5 mg/m <sup>3</sup> Class 3 - Moderately dangerous Data Source: KZ OEL  MPC-STEL: 5 mg/m <sup>3</sup> Class 3 - Moderately dangerous Data Source: RU OEL	< 0,1
formaldehyde	50-00-0	Flam. Liq.4; H227 Acute Tox.4; H302 Acute Tox.2; H330 Skin Corr.1A; H314 Eye Dam.1; H318 Skin Sens.1; H317 Muta.2; H341 Carc.1B; H350 Aquatic Acute2; H401	MPC-STEL: 0,5 mg/m <sup>3</sup> Class 2 - Highly dangerous, allergens, Substances which require special skin and eye protection Data Source: KZ OEL  MPC-STEL: 0,5 mg/m <sup>3</sup> Class 2 - Highly dangerous, Allergens, Substances which require special skin and eye protection	>= 0,0002 - < 0,0025

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			Data Source: RU OEL	
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For explanation of abbreviations see section 16.

### 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.  
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. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
- In case of skin contact : If on clothes, remove clothes.  
If on skin, rinse well with water.  
Wash off immediately with soap and plenty of water.  
Get medical attention immediately if irritation develops and persists.  
Wash contaminated clothing before re-use.
- 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.  
Take victim immediately to hospital.  
Do not induce vomiting without medical advice.
- Most important symptoms and effects, both acute and delayed : Causes mild skin irritation.  
May cause an allergic skin reaction.  
May be harmful if inhaled.  
May cause damage to organs through prolonged or repeated exposure.
- Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.
- Notes to physician : Treat symptomatically.  
Immediate medical attention is required in case of ingestion.

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### 5. FIRE-FIGHTING MEASURES

#### Flammable properties

Flash point : No data available  
Ignition temperature : No data available

Upper explosion limit / Upper flammability limit : Not available for this mixture.

Lower explosion limit / Lower flammability limit : Not available for this mixture.

Flammability (solid, gas) : Does not sustain combustion.

Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, 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.  
Nitrogen oxides (NO<sub>x</sub>)  
Sulfur oxides  
Carbon oxides  
Hydrogen cyanide

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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 : Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.  
Remove all sources of ignition.  
Ensure adequate ventilation.  
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.  
For disposal considerations see section 13.

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Environmental precautions : Prevent product from entering drains.  
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 : Keep in suitable, closed containers for disposal.

### 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Avoid dust formation.  
Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling : Avoid formation of respirable particles.  
Do not breathe vapors/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.  
Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : 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
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Sodium lignosulfonate	8061-51-6	MPC-STEEL (aerosol)	2 mg/m3	RU OEL
		Further information: Class 3 - Moderately dangerous		
		MPC-STEEL (aerosol)	2 mg/m3	KZ OEL
		Further information: Class 3 - Moderately dangerous		
magnesium distearate	557-04-0	TWA (particulate)	10 mg/m3	
		TWA (particulate)	3 mg/m3	
		TSEL (aerosol)	2 mg/m3	RU TSEL
		TSEL (aerosol)	2 mg/m3	KZ TSEL
sodium benzoate	532-32-1	MPC-STEEL (aerosol)	5 mg/m3	RU OEL
		Further information: Class 3 - Moderately dangerous		
		MPC-STEEL (aerosol)	5 mg/m3	KZ OEL
		Further information: Class 3 - Moderately dangerous		
sodium sulphate	7757-82-6	MPC-STEEL (aerosol)	10 mg/m3	RU OEL
		Further information: Class 4 - Low hazard		
		MPC-STEEL (aerosol)	10 mg/m3	KZ OEL
		Further information: Class 4 - Low hazard		
sodium chloride	7647-14-5	MPC-STEEL (aerosol)	5 mg/m3	RU OEL
		Further information: Class 3 - Moderately dangerous		
		MPC-STEEL (aerosol)	5 mg/m3	KZ OEL
		Further information: Class 3 - Moderately dangerous		
formaldehyde	50-00-0	MPC-STEEL (vapour and/or gas)	0,5 mg/m3	RU OEL
		Further information: Class 2 - Highly dangerous, Allergens, Substances which require special skin and eye protection		
		TWA	0,3 ppm 0,37 mg/m3	2004/37/EC
		STEL	0,6 ppm 0,74 mg/m3	2004/37/EC
		MPC-STEEL (vapour and/or gas)	0,5 mg/m3	KZ OEL
		Further information: Class 2 - Highly dangerous, allergens, Substances which require special skin		



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		and eye protection
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### Personal protective equipment

- |                          |   |  |
|--------------------------|---|--|
| Respiratory protection   | : | In the case of dust or aerosol formation use respirator with an approved filter.   |
| 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<br>Tightly fitting safety goggles  |
| Skin and body protection | : | Dust impervious protective suit<br>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.<br>Wear suitable protective equipment.<br>Ensure that eye flushing systems and safety showers are located close to the working place.<br>When using do not eat, drink or smoke.<br>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         | : | When using do not eat or drink.<br>When using do not smoke.<br>Wash hands before breaks and at the end of workday.<br>Remove and wash contaminated clothing and gloves, including the inside, before re-use.   |

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- |                |   |                |
|----------------|---|----------------|
| Physical state | : | solid          |
| Form           | : | granules       |
| Color          | : | brown          |
| Odor           | : | mild           |
| Odor Threshold | : | not determined |

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pH : Not available for this mixture.

Melting point/freezing point : Not available for this mixture.

Boiling point/boiling range : Not applicable

Flash point : No data available

Flammability (solid, gas) : Does not sustain combustion.

Upper explosion limit / Upper flammability limit : Not available for this mixture.

Lower explosion limit / Lower flammability limit : Not available for this mixture.

Vapor pressure : Not available for this mixture.

Relative vapor density : Not applicable

Relative density : Not available for this mixture.

Density : Not available for this mixture.

Bulk density : Not available for this mixture.

Solubility(ies)  
Water solubility : dispersible

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : Not applicable

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity  
Viscosity, dynamic : Not applicable

Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : The product is not oxidizing.

Particle size : No data available

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### 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. Dust may form explosive mixture in air.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	: No hazardous decomposition products are known.

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

May be harmful if inhaled.

#### Product:

Acute oral toxicity	: Acute toxicity estimate: > 5.000 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate: 6,03 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate: > 5.000 mg/kg Method: Calculation method

#### Components:

##### **tribenuron-methyl (ISO):**

Acute oral toxicity	: LD50: > 5.000 mg/kg Method: OECD Test Guideline 425
Acute inhalation toxicity	: LC50 (Rat): > 5,14 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity	: LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 402

##### **thifensulfuron-methyl (ISO):**

Acute oral toxicity	: LD50 (Rat): > 5.000 mg/kg
Acute inhalation toxicity	: LC50 (Rat): > 7,9 mg/l Exposure time: 4 h

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Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

### **kaolin:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 401

LD50: > 2.000 mg/kg  
Method: OECD Test Guideline 420  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50: 5,07 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 436

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg  
  
LD50: > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

### **Alkylated Naphthalene Sulfonate Sodium Salt:**

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

### **Lignosulfonic acid, ethoxylated, sodium salts:**

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

### **Sodium lignosulfonate:**

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

### **Sodium salt of polymer of formaldehyde / naphthalenesulfonic acid:**

Acute oral toxicity : LD50 (Rat): > 2.000 - 5.000 mg/kg

### **magnesium distearate:**

Acute oral toxicity : LD50 (Rat): > 10.000 mg/kg

### **sodium benzoate:**

Acute oral toxicity : LD50 (Rat, male and female): 3.450 mg/kg

Acute inhalation toxicity : LC0 (Rat, male and female): > 12,2 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Remarks: no mortality  
Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2.000 mg/kg

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**sodium sulphate:**

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Acute inhalation toxicity : LC0 (Rat): > 2,4 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 436  
Remarks: no mortality

**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

**formaldehyde:**

Acute oral toxicity : LD50 (Rat, male): 460 - 830 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male and female): 0,568 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: OECD Test Guideline 403  
Symptoms: Breathing difficulties, Fatality

Acute dermal toxicity : Symptoms: corrosive effects

**Skin corrosion/irritation**

Causes mild skin irritation.

**Components:****tribenuron-methyl (ISO):**

Species : Rabbit

Assessment : Not classified as irritant

Method : OECD Test Guideline 404

Remarks : May cause mild irritation.  
Based on available data, the classification criteria are not met.

**thifensulfuron-methyl (ISO):**

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Remarks : Minimal effects that do not meet the threshold for classification.

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### **kaolin:**

Method	:	OECD Test Guideline 404
Result	:	No skin irritation

### **Alkylated Naphthalene Sulfonate Sodium Salt:**

Remarks	:	No data available
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### **Lignosulfonic acid, ethoxylated, sodium salts:**

Result	:	Skin irritation
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### **Sodium lignosulfonate:**

Remarks	:	May cause skin irritation and/or dermatitis.
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### **Sodium salt of polymer of formaldehyde / naphthalenesulfonic acid:**

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

### **magnesium distearate:**

Result	:	slight irritation
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### **sodium benzoate:**

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

### **sodium sulphate:**

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

### **sodium chloride:**

Species	:	Rabbit
Result	:	No skin irritation

### **formaldehyde:**

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Corrosive

### **Serious eye damage/eye irritation**

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

### **Product:**

Remarks	:	Product dust may be irritating to eyes, skin and respiratory system.
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### **Components:**

#### **tribenuron-methyl (ISO):**

Species	:	Rabbit
Assessment	:	No eye irritation
Method	:	OECD Test Guideline 405
Remarks	:	May cause mild irritation. Based on available data, the classification criteria are not met.

#### **thifensulfuron-methyl (ISO):**

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

#### **kaolin:**

Result	:	No eye irritation
Method	:	OECD Test Guideline 405

#### **Alkylated Naphthalene Sulfonate Sodium Salt:**

Result	:	Eye irritation
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#### **Lignosulfonic acid, ethoxylated, sodium salts:**

Result	:	Moderate eye irritation
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#### **Sodium lignosulfonate:**

Remarks	:	May irritate eyes.
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#### **Sodium salt of polymer of formaldehyde / naphthalenesulfonic acid:**

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

#### **magnesium distearate:**

Result	:	slight irritation
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#### **sodium benzoate:**

Species	:	Rabbit
Result	:	Eye irritation
Method	:	OECD Test Guideline 405

#### **sodium sulphate:**

Species	:	Rabbit
Result	:	No eye irritation
Method	:	Regulation (EC) No. 440/2008, Annex, B.5

#### **sodium chloride:**

Species	:	Rabbit
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Result : No eye irritation

### **formaldehyde:**

Species : Rabbit  
Result : Irreversible effects on the eye

### **Respiratory or skin sensitization**

#### **Skin sensitization**

May cause an allergic skin reaction.

#### **Respiratory sensitization**

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

### **Product:**

Remarks : Causes sensitization.

### **Components:**

#### **tribenuron-methyl (ISO):**

Test Type : Maximization Test  
Species : Guinea pig  
Assessment : May cause sensitization by skin contact.  
Method : OECD Test Guideline 406  
Result : Causes skin sensitization.

#### **thifensulfuron-methyl (ISO):**

Test Type : Maximization Type  
Species : Guinea pig  
Method : OECD Test Guideline 429  
Result : Does not cause skin sensitization.

#### **kaolin:**

Method : OECD Test Guideline 429  
Result : Does not cause skin sensitization.

#### **Sodium salt of polymer of formaldehyde / naphthalenesulfonic acid:**

Test Type : Buehler Test  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Not a skin sensitizer.

#### **sodium benzoate:**

Test Type : Local lymph node assay (LLNA)  
Species : Mouse  
Result : Does not cause skin sensitization.

#### **sodium sulphate:**

Test Type : Maximization Test  
Species : Guinea pig



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Result : Does not cause skin sensitization.

### **formaldehyde:**

Test Type	: Local lymph node assay (LLNA)
Routes of exposure	: Skin contact
Species	: Mouse
Method	: OECD Test Guideline 429
Result	: May cause sensitization by skin contact.

### **Germ cell mutagenicity**

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

### **Components:**

#### **tribenuron-methyl (ISO):**

Germ cell mutagenicity - Assessment	: Did not show mutagenic effects in animal experiments.
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#### **thifensulfuron-methyl (ISO):**

Genotoxicity in vitro	: Test system: Chinese hamster ovary cells Method: OECD Test Guideline 476 Result: negative Remarks: In vitro tests did not show mutagenic effects
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Germ cell mutagenicity - Assessment	: Weight of evidence does not support classification as a germ cell mutagen.
-------------------------------------	--

#### **kaolin:**

Genotoxicity in vitro	: Test Type: Ames test Method: OECD Test Guideline 471 Result: negative
-----------------------	---

Genotoxicity in vivo	: Remarks: No data available
----------------------	------------------------------

#### **sodium benzoate:**

Genotoxicity in vitro	: Test Type: reverse mutation assay Method: OECD Test Guideline 471 Result: negative
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Genotoxicity in vivo	: Test Type: chromosome aberration assay Species: Rat (male) Application Route: Ingestion Method: OECD Test Guideline 475 Result: negative
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#### **sodium sulphate:**

Genotoxicity in vitro	: Test Type: reverse mutation assay Result: negative
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Genotoxicity in vivo	: Test Type: Micronucleus test Species: Mouse
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Application Route: Intraperitoneal injection  
Result: negative

### **formaldehyde:**

Genotoxicity in vitro : Test Type: in vitro DNA damage and/or repair study  
Result: positive

Test Type: Ames test  
Result: positive

Test Type: Chromosome aberration test in vitro  
Result: positive

Genotoxicity in vivo : Test Type: Bone marrow chromosome aberration.  
Species: Rat (female)  
Application Route: Inhalation  
Result: positive

Test Type: in vivo assay  
Species: Drosophila melanogaster (vinegar fly)  
Result: positive

Germ cell mutagenicity - Assessment : Suspected of inducing heritable mutations in the germ cells of humans.

### **Carcinogenicity**

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

### **Components:**

#### **tribenuron-methyl (ISO):**

Remarks : No significant adverse effects were reported

Carcinogenicity - Assessment : Did not show carcinogenic effects in animal experiments.

#### **thifensulfuron-methyl (ISO):**

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

#### **sodium benzoate:**

Species : Rat, male and female  
Application Route : Oral  
Exposure time : 730 d  
Result : negative

#### **formaldehyde:**

Species : Rat  
Application Route : Inhalation  
Exposure time : 13 weeks  
Dose : 9.7, 19.8 ppm  
LOAEC : 9,7 ppm

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Result : positive  
Target Organs : nasopharynx

Species : Rat  
Application Route : Inhalation  
Exposure time : 28 month(s)  
Dose : 0.1, 1, 9.8 ppm  
NOAEC : 1 ppm  
LOAEC : 10 ppm  
Result : positive  
Target Organs : nasopharynx

Carcinogenicity - Assessment : Possible human carcinogen

### Reproductive toxicity

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

#### Components:

##### **tribenuron-methyl (ISO):**

Reproductive toxicity - Assessment : No toxicity to reproduction  
Animal testing did not show any effects on fetal development.,  
Did not show teratogenic effects in animal experiments.

##### **thifensulfuron-methyl (ISO):**

Reproductive toxicity - Assessment : Did not show teratogenic effects in animal experiments.

##### **kaolin:**

Effects on fertility : Remarks: No data available

Effects on fetal development : Remarks: No data available

##### **sodium benzoate:**

Effects on fertility : Test Type: Two-generation study  
Species: Rat, male and female  
Application Route: Oral  
Result: negative

Effects on fetal development : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 414  
Result: negative

##### **sodium sulphate:**

Effects on fertility : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Oral  
Method: OECD Test Guideline 421  
Result: negative

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Effects on fetal development : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Oral  
Method: OECD Test Guideline 421

**formaldehyde:**

Effects on fertility : Test Type: reproductive and developmental toxicity study  
Species: Rat, male  
Application Route: Ingestion  
Result: negative

Effects on fetal development : Test Type: reproductive and developmental toxicity study  
Species: Mouse  
Application Route: Ingestion  
Method: OECD Test Guideline 414  
Result: negative

**STOT-single exposure**

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

**Components:****tribenuron-methyl (ISO):**

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

**kaolin:**

Remarks : No significant adverse effects were reported

**Lignosulfonic acid, ethoxylated, sodium salts:**

Assessment : May cause respiratory irritation.

**magnesium distearate:**

Assessment : May cause respiratory irritation.

**STOT-repeated exposure**

May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.

**Components:****tribenuron-methyl (ISO):**

Target Organs : Thyroid, Nervous system  
Assessment : May cause damage to organs through prolonged or repeated exposure.

**kaolin:**

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

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### Repeated dose toxicity

#### Components:

##### **tribenuron-methyl (ISO):**

Species	: Rabbit
LOAEL	: 80 mg/kg
Target Organs	: Thyroid, Nervous system
Assessment	: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Remarks	: Increased mortality or reduced survival

##### **thifensulfuron-methyl (ISO):**

Species	: Rat
LOAEL	: ca. 200 mg/kg
Exposure time	: 90 d
Target Organs	: No specific target organs noted
Symptoms	: Reduced body weight

##### **kaolin:**

Remarks	: No data available
---------	---------------------

##### **sodium benzoate:**

Species	: Rat, male and female
NOAEL	: 1.000 mg/kg
Application Route	: Oral - feed

##### **sodium sulphate:**

Species	: Rat
NOAEL	: > 1.000 mg/kg
Application Route	: Oral
Exposure time	: 4 weeks
Method	: OECD Test Guideline 421

##### **formaldehyde:**

Species	: Rat, male
NOAEL	: 15 mg/kg
LOAEL	: 82 mg/kg
Application Route	: Oral
Exposure time	: 735 d
Method	: OECD Test Guideline 453

Species	: Rat, female
NOAEL	: 21 mg/kg
LOAEL	: 109 mg/kg
Application Route	: Oral
Exposure time	: 735 d
Method	: OECD Test Guideline 453

### Aspiration toxicity

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

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**Components:****tribenuron-methyl (ISO):**

The substance does not have properties associated with aspiration hazard potential.

**Experience with human exposure****Components:****formaldehyde:**

Inhalation	:	Symptoms: Nasal irritation
Skin contact	:	Symptoms: corrosive effects
Eye contact	:	Symptoms: corrosive effects

**Further information****Product:**

Remarks	:	No data available
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**12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****tribenuron-methyl (ISO):**

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 738 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Crustaceans): > 320 mg/l Exposure time: 48 h  EC50 (Daphnia magna (Water flea)): > 894 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 0,0208 mg/l Exposure time: 120 h  EC50 (Lemna gibba (duckweed)): 0,00424 mg/l Exposure time: 14 d
Toxicity to fish (Chronic toxicity)	:	NOEC (Cyprinodon variegatus (sheepshead minnow)): 114 mg/l Exposure time: 21 d Method: OECD Test Guideline 211  NOEC (Oncorhynchus mykiss (rainbow trout)): 560 mg/l Exposure time: 21 d
Toxicity to daphnia and other	:	NOEC (Daphnia magna (Water flea)): 41 mg/l

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aquatic invertebrates (Chronic toxicity)

Exposure time: 21 d

Toxicity to soil dwelling organisms

: NOEC (*Eisenia fetida* (earthworms)): 3,2 mg/kg  
Exposure time: 56 d

Toxicity to terrestrial organisms

: LD50 (*Colinus virginianus* (Bobwhite quail)): > 2.250 mg/kg

LD50 (*Colinus virginianus* (Bobwhite quail)): > 5.620 ppm  
Remarks: Dietary

LD50 (*Anas platyrhynchos* (Mallard duck)): > 5.620 ppm  
Remarks: Dietary

LD50 (*Apis mellifera* (bees)): > 98.4 µg/bee  
Exposure time: 48 h  
End point: Acute contact toxicity

LD50 (*Apis mellifera* (bees)): > 9.1 µg/bee  
Exposure time: 48 h  
End point: Acute oral toxicity

### Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

### thifensulfuron-methyl (ISO):

Toxicity to fish : LC50 (*Salmo gairdneri*): 100 mg/l  
Exposure time: 96 h

LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 250 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 470 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : IC50 (green algae): 0,0159 mg/l  
Exposure time: 72 h

ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 1,4 mg/l  
Exposure time: 72 h

EC50 (*Lemna minor* (duckweed)): 1,3 µg/l

Toxicity to fish (Chronic toxicity) : NOEC (*Salmo gairdneri*): 250 mg/l  
Exposure time: 28 d

NOEC (*Oncorhynchus mykiss* (rainbow trout)): 10,6 mg/l  
Exposure time: 21 d

Toxicity to daphnia and other : NOEC (*Daphnia magna* (Water flea)): 100 mg/l

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aquatic invertebrates (Chronic toxicity)

Exposure time: 21 d

Toxicity to soil dwelling organisms

: LC50 (*Eisenia fetida* (earthworms)): > 2.000 mg/kg

Toxicity to terrestrial organisms

: LD50 (*Anas platyrhynchos* (Mallard duck)): > 2.510 mg/kg

LD50 (*Anas platyrhynchos* (Mallard duck)): > 5.620 ppm  
Remarks: Dietary

LD50 (*Colinus virginianus* (Bobwhite quail)): > 5.620 ppm

LD50 (*Apis mellifera* (bees)): > 7.1 µg/bee  
End point: Acute oral toxicity

LD50 (*Apis mellifera* (bees)): > 100 µg/bee  
End point: Acute contact toxicity

### Ecotoxicology Assessment

Acute aquatic toxicity

: Very toxic to aquatic life.

Chronic aquatic toxicity

: Very toxic to aquatic life with long lasting effects.

### kaolin:

Toxicity to fish

: LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates

: EC50 (*Daphnia magna* (Water flea)): > 1.000 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants

: EC50 (*Raphidocelis subcapitata* (freshwater green alga)): > 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

: Remarks: No data available

Toxicity to microorganisms

: Remarks: No data available

### Alkylated Naphthalene Sulfonate Sodium Salt:

Toxicity to fish

: LC50 (*Zebra fish*): > 10 - 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates

: EC50 (*Daphnia magna* (Water flea)): > 100 mg/l  
Exposure time: 48 h



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Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

EC10 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia magna (Water flea)): > 10 - 100 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211  
Remarks: Based on data from similar materials

### **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 salt of polymer of formaldehyde / naphthalenesulfonic acid:**

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50 (Daphnia magna (Water flea)): 5,37 - 8,77 mg/l  
Exposure time: 45 d

### **sodium benzoate:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 484 mg/l  
Exposure time: 96 h  
Method: EPA OPP 72-1

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 96 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 30,5 mg/l  
Exposure time: 72 h

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Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC (Danio rerio (zebra fish)): 10 mg/l  
Exposure time: 6 d

Toxicity to microorganisms : NOEC (sewage treatment plant microorganisms): > 100 mg/l  
Exposure time: 168 h

### **sodium sulphate:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 7.960 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.766 mg/l  
Exposure time: 48 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Ceriodaphnia dubia (water flea)): 1,109 mg/l  
Exposure time: 7 d

Toxicity to microorganisms : EC10 (Anabaena flos-aquae (cyanobacterium)): 1.900 mg/l  
Exposure time: 5 d

NOEC (Natural microorganism): 8.000 mg/l  
Exposure time: 37 d

### **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

### **formaldehyde:**

Toxicity to fish : LC50 (Morone saxatilis): 6,18 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 5,8 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

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Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 5,67 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	:	(Oryzias latipes (Japanese medaka)): > 48 mg/l Exposure time: 28 d Method: OECD Test Guideline 215
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): > 6,4 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to microorganisms	:	EC50 (activated sludge): 19 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): Exposure time: 48 h

### Persistence and degradability

#### Product:

Biodegradability	:	Remarks: Not readily biodegradable. Estimation based on data obtained on active ingredient.
------------------	---	--

#### Components:

##### **tribenuron-methyl (ISO):**

Biodegradability	:	Biodegradation: 29,4 % Exposure time: 28 d
------------------	---	---

##### **thifensulfuron-methyl (ISO):**

Biodegradability	:	Remarks: Not readily biodegradable. Primary degradation half-lives vary with circumstances, from a few days to a few weeks in aerobic water and soil.
------------------	---	--

##### **kaolin:**

Biodegradability	:	Remarks: The methods for determining biodegradability are not applicable to inorganic substances.
------------------	---	---

##### **Alkylated Naphthalene Sulfonate Sodium Salt:**

Biodegradability	:	Result: Not readily biodegradable. Remarks: Based on data from similar materials
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##### **Lignosulfonic acid, ethoxylated, sodium salts:**

Biodegradability	:	Result: Not readily biodegradable.
------------------	---	------------------------------------

##### **Sodium lignosulfonate:**

Biodegradability	:	Result: Not readily biodegradable. Remarks: Based on data from similar materials
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**Sodium salt of polymer of formaldehyde / naphthalenesulfonic acid:**

Biodegradability : Result: Not readily biodegradable.  
Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

Chemical Oxygen Demand (COD) : 20 - 70 %(m)

**sodium benzoate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation:  $\geq 50$  %  
Exposure time: 60 d  
Method: OECD Test Guideline 311

**sodium sulphate:**

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

**formaldehyde:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 99 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301A

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: Does not bioaccumulate.  
Estimation based on data obtained on active ingredient.

**Components:****tribenuron-methyl (ISO):**

Bioaccumulation : Bioconcentration factor (BCF):  $< 1$   
Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: -0,38

**thifensulfuron-methyl (ISO):**

Bioaccumulation : Bioconcentration factor (BCF): 1  
Remarks: Does not bioaccumulate.

**kaolin:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : Remarks: Not applicable

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### **Sodium salt of polymer of formaldehyde / naphthalenesulfonic acid:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

### **magnesium distearate:**

Partition coefficient: n-octanol/water : log Pow: 0,8

### **sodium benzoate:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 1,88  
Remarks: Based on data from similar materials

### **formaldehyde:**

Partition coefficient: n-octanol/water : log Pow: 0,35

### **Mobility in soil**

#### **Product:**

Distribution among environmental compartments : Remarks: Potentially mobile, but the leaching potential is mitigated by rapid degradation in viable agricultural soils.

#### **Components:**

#### **tribenuron-methyl (ISO):**

Distribution among environmental compartments : Remarks: Under normal conditions the active ingredient/s is/are of high to intermediate mobility in soil. There is a potential for leaching to groundwater.

#### **thifensulfuron-methyl (ISO):**

Distribution among environmental compartments : Koc: 28,3, log Koc: 1,45  
Remarks: Highly mobile in soils

Stability in soil :

#### **kaolin:**

Distribution among environmental compartments : Remarks: Low mobility in soil.

### **Sodium salt of polymer of formaldehyde / naphthalenesulfonic acid:**

Mobility : Remarks: Adsorption to solid soil phase is possible.

### **magnesium distearate:**

Distribution among environmental compartments : Remarks: immobile

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**Other adverse effects****Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Very toxic to aquatic life with long lasting effects.

**Hygienic standards:****(Allowable concentration in air, water, including fishery waters, soil)**

Components	Air	Water	Soil	Data Source
tribenuron-methyl (ISO) 101200-48-0	No data available	MPC: 0,2 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 MPC: 0,1 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary and toxicological effects Hazard class: 3	No data available	List 5
thifensulfuron-methyl (ISO) 79277-27-3	No data available	MPC: 0,7 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary and toxicological effects Hazard class: 3	No data available	List 5

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Sodium lignosulfonate 8061-51-6	TSEL: 0,5 mg/m3	MPC: 3 Milligrams per cubed decimeter Limiting health hazard indicator: sanitary and toxico- logical effects Hazard class: 4 MPC: 3 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 4	No data avail- able	List 2 List 5
magnesium distearate 557-04-0	TSEL: 0,05 mg/m3	TSEL: 0,25 mg/l Limiting health hazard indicator: organoleptic; in- creases the turbidi- ty of the water Hazard class: Class 4 - low hazard	No data avail- able	List 2 List 3
sodium benzoate 532-32-1	TSEL: 0,05 mg/m3	TSEL: 0,1 mg/l Limiting health hazard indicator: general sanitary Hazard class: Class 3 - moderately dangerous	No data avail- able	List 2 List 3
sodium sulphate 7757-82-6	MPC - maximum: 0,3 mg/m3 Limiting health haz- ard indicator: resorp- tive Hazard class: Class 3 - moderately dan- gerous MPC - average: 0,1 mg/m3 Limiting health haz- ard indicator: resorp- tive Hazard class: Class 3 - moderately dan- gerous	No data available	No data avail- able	List 1
sodium chloride 7647-14-5	MPC - average: 0,15 mg/m3 Limiting health haz-	MPC: 300 Milligrams per cubed decimeter	No data avail- able	List 1 List 2 List 5

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	ard indicator: resorptive Hazard class: Class 3 - moderately dangerous MPC - maximum: 0,5 mg/m <sup>3</sup> Limiting health hazard indicator: resorptive Hazard class: Class 3 - moderately dangerous TSEL: 0,15 mg/m <sup>3</sup>	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		
formaldehyde 50-00-0	MPC - average: 0,01 mg/m <sup>3</sup> Limiting health hazard indicator: Reflectory-resorptive Hazard class: Class 2 - highly dangerous MPC - maximum: 0,05 mg/m <sup>3</sup> Limiting health hazard indicator: Reflectory-resorptive Hazard class: Class 2 - highly dangerous MPC - average chronic: 0,003 mg/m <sup>3</sup> Limiting health hazard indicator: Reflectory-resorptive Hazard class: Class 2 - highly dangerous	MAC: 0,05 mg/l Limiting health hazard indicator: sanitary-toxicological Hazard class: Class 2 - highly dangerous MPC: 0,25 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 4 MPC: 0,1 mg/l formaldehyde Limiting health hazard indicator: toxic Hazard class: 4 MPC: 0,1 Milligrams per cubed decimeter Limiting health hazard indicator: toxic Hazard class: 3 MPC: 0,05 mg/l formaldehyde Limiting health hazard indicator: toxic Hazard class: 3	MPC: 7 mg/kg Limiting health hazard indicator: Air-migration	List 1 List 4 List 5 List 7



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For explanation of abbreviations see section 16.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

- |                        |   |   |
|------------------------|---|---|
| Waste from residues    | : | The product should not be allowed to enter drains, water courses or the soil.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Send to a licensed waste management company.  |
| Contaminated packaging | : | Empty remaining contents.<br>Triple rinse containers.<br>Do not re-use empty containers.<br>Packaging that is not properly emptied must be disposed of as the unused product.<br>Empty containers should be taken to an approved waste handling site for recycling or disposal. |

### 14. TRANSPORT INFORMATION

#### ADR

- |                              |   |  |
|------------------------------|---|--|
| UN number                    | : | UN 3077  |
| Proper shipping name         | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.<br>(Tribenuron-methyl, Thifensulfuron-methyl) |
| Class                        | : | 9  |
| Packing group                | : | III  |
| Labels                       | : | 9  |
| Hazard Identification Number | : | 90   |
| Tunnel restriction code      | : | (-)  |
| Environmentally hazardous    | : | yes  |

#### UNRTDG

- |                      |   |  |
|----------------------|---|--|
| UN number            | : | UN 3077  |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.<br>(Tribenuron-methyl, Thifensulfuron-methyl) |
| Class                | : | 9  |
| Subsidiary risk      | : | ENVIRONM.  |
| Packing group        | : | III  |
| Labels               | : | 9 (ENVIRONM.)  |

#### IATA-DGR

- |  |   |  |
|--|---|--|
| UN/ID No.                                | : | UN 3077  |
| Proper shipping name                     | : | Environmentally hazardous substance, solid, n.o.s.<br>(Tribenuron-methyl, Thifensulfuron-methyl) |
| Class                                    | : | 9  |
| Packing group                            | : | III  |
| Labels                                   | : | Miscellaneous  |
| Packing instruction (cargo aircraft)     | : | 956  |
| Packing instruction (passenger aircraft) | : | 956  |

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ger aircraft)

Environmentally hazardous : yes

### IMDG-Code

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Tribenuron-methyl, Thifensulfuron-methyl)

Class : 9

Packing group : III

Labels : 9

EmS Code : F-A, S-F

Marine pollutant : yes

### 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

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country 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 the following components that are not on the Canadian DSL nor NDSL.

tribenuron-methyl (ISO)  
thifensulfuron-methyl (ISO)

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

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## 16. OTHER INFORMATION

### Full text of H-Statements

H227	Combustible liquid.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H313	May be harmful 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.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Carc.	: Carcinogenicity
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
Muta.	: Germ cell mutagenicity
Skin Corr.	: Skin corrosion
Skin Irrit.	: Skin irritation
Skin Sens.	: Skin sensitization
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single 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
KZ TSEL	: Kazakhstan. Order of the Ministry of Health No. KP DCM-70, Annex 2, Table 2 Tentative safe exposure level (TSEL) 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 / STEL	: Short term exposure limit

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2004/37/EC / TWA	:	Long term exposure limit
KZ OEL / MPC-STEL	:	Maximum Permissible Concentration - Short Term Exposure
KZ TSEL / TSEL	:	TSEL value
RU OEL / MPC-STEL	:	Maximum Permissible Concentration - Short Term Exposure
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 Levels (TSEL) of pollutants in the air of urban and rural settlements
List 3	:	SanPiN 1.2.3685-21 Table 3.14 Indicative permissible levels (TAC) of chemicals in the water of drinking systems of centralized, including hot, and non-centralized water supply, water of ground and surface water bodies of drinking and cultural and domestic water use, water of swimming pools, water parks
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"
List 7	:	SanPiN 1.2.3685-21 Table 4.1 Maximum allowable concentration (MPC) and approximate allowable concentration (APC) of chemicals in the soil

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - 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

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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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