

SAFETY DATA SHEET

Express® Herbicide



Version 1.0	Revision Date: 2024/10/23	SDS Number: 50001020	Date of last issue: - Date of first issue: 2024/10/23
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Express® Herbicide

Recommended use of the chemical and restrictions on use

Recommended use : Herbicide

Restrictions on use : Use as recommended by the label.

Manufacturer or supplier's details

Company : PT FMC AGRICULTURAL MANUFACTURING

Address : WISMA KODEL LANTAI 10 JALAN HR.RASUNA
SAID,KAV.B-4,KEL.SETIA BUDI, KEC.SETIABU
ADM. JAKARTA SELATAN,PROV.DKI JAKARTA
Indonesia

Telephone : +62 21-50890890

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

Emergency telephone : For leak, fire, spill or accident emergencies, call:
001-803-017-9114 (CHEMTREC)
1 703 / 741-5970 (CHEMTREC - International)

Medical emergency:
0800 140 1447

2. HAZARDS IDENTIFICATION

GHS Classification

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

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1



GHS label elements

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Hazard pictograms :  

Signal Word : WARNING

Hazard Statements : 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.
Response:
P314 Get medical advice/ attention if you feel unwell.
P391 Collect spillage.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
tribenuron-methyl (ISO)	101200-48-0	≥ 70 - ≤ 90
sodium carbonate	497-19-8	< 10
Sodium alkyl naphthalenesulfonate formaldehyde condensate	68425-94-5	$\geq 2,5$ - < 10
kaolin	1332-58-7	< 10
Silicon dioxide	112926-00-8	< 10

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 : Move to fresh air.
Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.

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| In case of skin contact | : Take off all contaminated clothing immediately.
Wash contaminated clothing before re-use.
Wash off immediately with plenty of water for at least 15 minutes.
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.
Take victim immediately to hospital. |
| Most important symptoms and effects, both acute and delayed | : May cause damage to organs through prolonged or repeated exposure.
May cause damage to organs through prolonged or repeated exposure. |
| 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. |

5. FIRE-FIGHTING MEASURES

- | | |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media | : Dry chemical, CO ₂ , water spray or regular foam. |
| Unsuitable extinguishing media | : High volume water jet
Do not spread spilled material with high-pressure water streams. |
| Specific hazards during fire fighting | : Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : Nitrogen oxides (NO _x)
Sulfur oxides
Carbon oxides |
| Specific extinguishing methods | : 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 | : Firefighters should wear protective clothing and self-contained breathing apparatus. |

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
Ensure adequate ventilation.
Do not touch or walk through the spilled material.
If it can be safely done, stop the leak.
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.
- 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 : Sweep up and shovel into suitable 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.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
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.
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 stability : No decomposition if stored and applied as directed.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
kaolin	1332-58-7	NAB (Respirable)	2 mg/m3	ID OEL
		Further information: Not classified as carcinogenic to humans. Not enough data to classify these materials as carcinogenic to humans or animals		
		TWA (Respirable particulate matter)	2 mg/m3	ACGIH
Silicon dioxide	112926-00-8	NAB	10 mg/m3	ID OEL
		Further information: Chemicals with a limit value higher than the Allowable Exposure Limit (PEL) of OSHA and/or the recommended NIOSH limit value		

Personal protective equipment

- Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
- Filter type : Particulates type
- 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 : Dust impervious protective suit
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.
Ensure that eye flushing systems and safety showers are located close to the working place.
Wear suitable protective equipment.
In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use.

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Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: granular
Color	: light brown
Odor	: mild, sweet
pH	: 8,0 (25 °C) Concentration: 10 g/l
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: Not applicable
Flammability (solid, gas)	: Does not sustain combustion.
Self-ignition	: 400 °C
Lower explosion limit / Lower flammability limit	: 0,365 mg/m ³
Density	: No data available
Bulk density	: 730 kg/m ³
Solubility(ies)	
Water solubility	: dispersible
Solubility in other solvents	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive
Minimum ignition energy	: 10 - 20 mJ
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	: Exposure to moisture. Avoid dust formation. Protect from frost, heat and sunlight.
Incompatible materials	: Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	: Carbon oxides Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

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

Product:

Acute oral toxicity	: LD50 (Rat): > 5.000 mg/kg Remarks: (Data on the product itself) Information source: Internal study report
Acute dermal toxicity	: LD50 (Rabbit): > 2.000 mg/kg

Components:

tribenuron-methyl (ISO):

Acute oral toxicity	: LD50: > 5.000 mg/kg Method: OECD Test Guideline 425
Acute inhalation toxicity	: LC50 (Rat): > 6 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	: LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 402

sodium carbonate:

Acute oral toxicity	: LD50 (Rat, male and female): 2.800 mg/kg
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Acute inhalation toxicity : LC50 (Rat, male): 2,3 mg/l
Exposure time: 2 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Target Organs: Skin
Symptoms: Erythema

Sodium alkyl naphthalenesulfonate formaldehyde condensate:

Acute oral toxicity : LD50 (Rat): > 5.000 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 (Rat): 36 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist

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

Silicon dioxide:

Acute oral toxicity : LD50 (Rat, male and female): > 5.000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC0 (Rat, male and female): > 0,14 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Remarks: Based on data from similar materials
no mortality

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Remarks: Based on data from similar materials

Skin corrosion/irritation

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

Product:

Species : Rabbit

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Assessment	:	Not classified as irritant
Result	:	No skin irritation
Remarks	:	(Data on the product itself)
		Information source: Internal study report

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.

sodium carbonate:

Species	:	Rabbit
Exposure time	:	4 h
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Sodium alkyl naphthalenesulfonate formaldehyde condensate:

Remarks	:	No data available
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kaolin:

Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Silicon dioxide:

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

Serious eye damage/eye irritation

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

Product:

Species	:	Rabbit
Result	:	No eye irritation
Assessment	:	Not classified as irritant
Remarks	:	(Data on the product itself)
		Information source: Internal study report

Components:

tribenuron-methyl (ISO):

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

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

sodium carbonate:

Species : Rabbit
Result : Irritation to eyes, reversing within 21 days

Sodium alkyl naphthalenesulfonate formaldehyde condensate:

Result : Eye irritation

kaolin:

Result : No eye irritation
Method : OECD Test Guideline 405

Silicon dioxide:

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

Respiratory or skin sensitization

Skin sensitization

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

Respiratory sensitization

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

Product:

Species : Guinea pig
Assessment : Not a skin sensitizer.
Result : Animal test did not cause sensitization by skin contact.
Remarks : (Data on the product itself)
: Information source: Internal study report

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.

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

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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.

sodium carbonate:

Genotoxicity in vitro : Test Type: reverse mutation assay
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Result: negative
Remarks: Based on data from similar materials

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

Silicon dioxide:

Genotoxicity in vitro : Test Type: reverse mutation assay
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Species: Rat (male)
Application Route: Inhalation
Result: negative
Remarks: Based on data from similar materials

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.

Silicon dioxide:

Species : Rat
Application Route : Oral

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Exposure time	:	103 weeks
Method	:	OECD Test Guideline 453
Result	:	negative
Remarks	:	Based on data from similar materials

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.
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sodium carbonate:

Effects on fetal development	:	Species: Rat Application Route: Oral Dose: 2.45, 11.4, 52.9, 245 milligram per kilogram Duration of Single Treatment: 6 - 15 d General Toxicity Maternal: NOAEL: > 245 mg/kg body weight Teratogenicity: NOAEL: > 245 mg/kg body weight Result: negative
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Reproductive toxicity - Assessment	:	Weight of evidence does not support classification for reproductive toxicity
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kaolin:

Effects on fertility	:	Remarks: No data available
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Effects on fetal development	:	Remarks: No data available
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Silicon dioxide:

Effects on fertility	:	Species: Rat General Toxicity Parent: NOAEL: 1,5 mg/kg bw/day Fertility: NOAEL: > 6,9 mg/kg body weight
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Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: Oral General Toxicity Maternal: NOAEL: 2 mg/kg bw/day Embryo-fetal toxicity.: NOAEL: 2 mg/kg bw/day Symptoms: Reduced fetal weight., Reduced number of viable fetuses.
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	:	Test Type: Embryo-fetal development Species: Rabbit Application Route: Oral General Toxicity Maternal: NOAEL: 500 mg/kg bw/day Embryo-fetal toxicity.: NOAEL: 500 mg/kg bw/day Symptoms: Reduced fetal weight., fused or incompletely ossi-
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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

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.

sodium carbonate:

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

kaolin:

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

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

sodium carbonate:

Species : Rat, male and female
NOAEL : > 0,01 mg/kg
Application Route : inhalation (dust/mist/fume)
Test atmosphere : dust/mist

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kaolin:

Remarks : No data available

Silicon dioxide:

Species : Rat, male and female
NOAEL : 2.500 mg/kg
Application Route : Oral
Exposure time : 13 weeks
Method : OECD Test Guideline 408
Remarks : Based on data from similar materials

Species : Rat, male and female
NOAEL : 1,3 - 10 mg/l
LOAEL : 5,9 mg/l
Application Route : Inhalation
Exposure time : 13 weeks
Method : OECD Test Guideline 413
Remarks : Based on data from similar materials

Aspiration toxicity

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

Components:

tribenuron-methyl (ISO):

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

Further information

Product:

Remarks : No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 260 mg/l
Exposure time: 96 h
LC50 (Lepomis macrochirus (Bluegill sunfish)): 340 mg/l
Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.000 mg/l
Exposure time: 48 h
Toxicity to algae/aquatic plants : EbC50 (Pseudokirchneriella subcapitata (green algae)): 0,06 mg/l
Exposure time: 72 h

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EC50 (Lemna gibba (duckweed)): 0,029 mg/l
Exposure time: 336 h

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 aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 41 mg/l 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

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Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

sodium carbonate:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 300 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia (water flea)): 200 mg/l
Exposure time: 48 h
Test Type: semi-static test

Sodium alkyl-naphthalenesulfonate formaldehyde condensate:

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
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

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

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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

Silicon dioxide:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 10.000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10.000 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : NOELR (Desmodesmus subspicatus (green algae)): 10.000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Persistence and degradability

Components:

tribenuron-methyl (ISO):

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

sodium carbonate:

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

Sodium alkyl naphthalenesulfonate formaldehyde condensate:

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

kaolin:

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

Silicon dioxide:

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

Bioaccumulative potential

Components:

tribenuron-methyl (ISO):

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

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

sodium carbonate:

Bioaccumulation : Remarks: Does not bioaccumulate.

kaolin:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

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

Silicon dioxide:

Bioaccumulation : Bioconcentration factor (BCF): 3,16
Remarks: Based on data from similar materials

Mobility in soil

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.

kaolin:

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

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Disposal methods

- | | | |
|------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste from residues | : | The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company. |
| Contaminated packaging | : | Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers. |

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

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

IATA-DGR

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

IMDG-Code

- | | | |
|----------------------|---|---------------------------------------------------------------------------|
| UN number | : | UN 3077 |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Tribenuron-methyl) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | 9 |
| EmS Code | : | F-A, S-F |

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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

Minister of Industry Regulation No. 23/M-IND/PER/4/2013 concerning the Revision of Minister of Industry Regulation No. 87/M-IND/PER/9/2009 concerning Globally Harmonized System of Classification and Labelling of Chemicals.

Regulation of the Minister of Health No. 472 of 1996 on the Safeguarding of Substances Hazardous to Health

Hazardous substances that must be registered : Not applicable

Government Regulation No. 74 of 2001 on the Management of Hazardous and Toxic Substances

Hazardous substances approved for use : Not applicable

Prohibited substances : Not applicable

Restricted substances : Not applicable

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.

METHYL 2-[4-METHOXY-6-METHYL-1,3,5-TRIAZIN-2-YL(METHYL)CARBAMOYLSULFAMOYL]BENZOATE

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

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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

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Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
ID OEL	: Indonesia. Occupational Exposure Limits

ACGIH / TWA	: 8-hour, time-weighted average
ID OEL / NAB	: Long term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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