SAFETY DATA SHEET

BENEVIA®

Version	Revision Date:	SDS Number:	Date of last issue: -
3.0	27.02.2025	50000912	Date of first issue: 29.10.2018

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product name BENEVIA®

Other means of identification

Product code 50000912

Product Registration Number RSCO-INAC-0190-0332-409-10.26

Recommended use of the chemical and restrictions on use

Recommended use Can be used as insecticide only.

Restrictions on use Use as recommended by the label.

Manufacturer or supplier's details

Manufacturer

FMC AGROQUÍMICA DE MÉXICO,
S. DE R.L. DE C.V AV. VALLARTA NO.
6503, LOCAL A1-6, COL. CD. GRANJA,
45010 ZAPOPAN, JALISCO, MÉXICO
TEL.: 800 FMC AGRO (362 2476)
CONTACTOMEXICO@FMC.COM
SDS-Info@fmc.com

Emergency telephone

For leak, fire, spill or accident emergencies, call:
800-681-9531 (CHEMTREC - Mexico)
1 703 / 741-5970 (CHEMTREC - International)

Medical emergency:
911
SINTOX (Toxicological Information Service): 800 009 2800; 55 5611 2634 and 55 5598 6659, service 24 hours a day, 365 days a year.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin sensitization : Category 1

GHS label elements

Hazard pictograms :

Signal Word : WARNING

Hazard Statements : H317 May cause an allergic skin reaction.

Precautionary Statements :

Prevention:

P261 Avoid breathing mist or vapors.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Very toxic to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
calcium dodecylbenzenesulphonate	26264-06-2	>= 10 -< 20
2-ethylhexan-1-ol	104-76-7	>= 5 -< 10
Fatty acids, C6-10, Me esters	68937-83-7	>= 1 -< 5
methanol	67-56-1	>= 0.1 -< 1

SECTION 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 : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Take off all contaminated clothing immediately.
Wash off with soap and water.
Wash contaminated clothing before re-use.
Get medical attention immediately 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	:	Do not induce vomiting without medical advice. 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.
Most important symptoms and effects, both acute and delayed	:	May cause an allergic skin reaction. Exposure to skin may result in mild symptoms include itching, hives or rash, and skin redness. More severe symptoms include sneezing, itchy watery eyes, and difficulty breathing.
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	:	In case of poisoning, call the emergency numbers SINTOX (control center of intoxications): 800-00-928-00; (55) 5611 2634 and (55) 5598 6659, 24-hour service on 365 days of the year. For emergencies: 911. Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Dry chemical, CO2, water spray or regular foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	Do not spread spilled material with high-pressure water streams.
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Fire may produce irritating, corrosive and/or toxic gases. Carbon oxides Sulfur oxides Chlorine compounds Nitrogen oxides (NOx) Bromine compounds Hydrogen cyanide
Specific extinguishing methods	:	Remove undamaged containers from fire area if it is safe to do so. Use a water spray to cool fully closed containers.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Use personal protective equipment.
If it can be safely done, stop the leak.
Do not touch or walk through the spilled material.
Never return spills in original containers for re-use.
Mark the contaminated area with signs and prevent access to unauthorized personnel.
Only qualified personnel equipped with suitable protective equipment may intervene.
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 : Never return spills in original containers for re-use.
Collect as much of the spill as possible with a suitable absorbent material.
Pick up and transfer to properly labeled containers.
Keep in suitable, closed containers for disposal.

For further cleaning instructions call CHEMTREC, 800-681-9531.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : 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.

For incompatible materials see section 10.

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.

Hygiene measures	:	Avoid contact with skin, eyes and clothing. Do not inhale aerosol. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing and gloves, including the inside, before re-use.
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	:	The product is stable under normal conditions of warehouse storage. Protect from frost and extreme heat. 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.
Recommended storage temperature	:	5 - 30 °C
Further information on storage stability	:	No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-ethylhexan-1-ol	104-76-7	TWA	5 ppm	ACGIH
methanol	67-56-1	VLE-PPT	200 ppm	NOM-010-STPS-2014
		VLE-CT	250 ppm	NOM-010-STPS-2014
		TWA STEL	200 ppm 250 ppm	ACGIH ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
methanol	67-56-1	Methanol	Urine	End of shift	15 mg/l	MX BEI
		Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGIH BEI

Personal protective equipment

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

Hand protection

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

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

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

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

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Form	:	dispersion
Color	:	off-white
Odor	:	mild, oily
Odor Threshold	:	No data available
pH	:	5.1 Concentration: 10 g/l 1 % (as a dispersion)
Melting point/freezing point	:	not determined
Boiling point/boiling range	:	99 °C
Flash point	:	> 99 °C Method: closed cup
Evaporation rate	:	No data available
Flammability (liquids)	:	Not classified as a flammability hazard
Self-ignition	:	254 °C
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Relative vapor density	:	Not available for this mixture.
Relative density	:	0.978
Density	:	No data available
Bulk density	:	0.9 - 1.1 g/cm3
Solubility(ies)		
Water solubility	:	No data available

Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	not determined
Viscosity		
Viscosity, dynamic	:	345 mPa.s 25 rpm 257 mPa.s 50 rpm 200 mPa.s 100 rpm
Viscosity, kinematic	:	353 mm2/s 25 rpm 204 mm2/s 100 rpm
Explosive properties	:	Not explosive
Oxidizing properties	:	Non-oxidizing
Molecular weight	:	Not applicable
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	Avoid formation of aerosol. Avoid extreme temperatures. Heat, flames and sparks. Protect from frost, heat and sunlight. Heating of the product will produce harmful and irritant vapours.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.

Hazardous decomposition products	:	Stable under recommended storage conditions. No hazardous decomposition products are known.

SECTION 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 Method: OECD Test Guideline 425 GLP: yes Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	:	LC50 (Rat): > 5.2 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 GLP: yes Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 402 GLP: yes Assessment: The substance or mixture has no acute dermal toxicity

Components:

calcium dodecylbenzenesulphonate:

Acute oral toxicity	:	LD50 (Rat, male and female): 1,300 mg/kg Remarks: Based on data from similar materials
Acute inhalation toxicity	:	Remarks: Not classified
Acute dermal toxicity	:	LD50 (Rat, male and female): > 2000 milligram per kilogram Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on data from similar materials

2-ethylhexan-1-ol:

Acute oral toxicity	:	LD50 (Rat, male): 2,047 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 4.3 mg/l Exposure time: 4 h Test atmosphere: dust/mist

Acute dermal toxicity	:	LD50 (Rat, male and female): > 3,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity

Fatty acids, C6-10, Me esters:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg

methanol:

Acute oral toxicity	:	LD50 (Rat): 1,187 mg/kg Acute toxicity estimate (Humans): 100 mg/kg Method: Expert judgment
Acute inhalation toxicity	:	LC50 (Rat, female): 82.1 mg/l Exposure time: 4 h Test atmosphere: vapor LC50 (Rat, male): 92.6 mg/l Exposure time: 4 h Test atmosphere: vapor Acute toxicity estimate: 5 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Expert judgment
Acute dermal toxicity	:	LD50 (Rabbit): 17,100 mg/kg Acute toxicity estimate: 300 mg/kg Method: Expert judgment

Skin corrosion/irritation

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

Product:

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

Components:

calcium dodecylbenzenesulphonate:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Skin irritation

2-ethylhexan-1-ol:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Skin irritation

Fatty acids, C6-10, Me esters:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Skin irritation

methanol:

Species	:	Rabbit
Result	:	No skin irritation

Serious eye damage/eye irritation

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

Product:

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

Components:

calcium dodecylbenzenesulphonate:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Method	:	OECD Test Guideline 405
Remarks	:	Based on data from similar materials

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Method	:	OECD Test Guideline 405

2-ethylhexan-1-ol:

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

Fatty acids, C6-10, Me esters:

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

methanol:

Species	:	Rabbit

Result : No eye irritation

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:

Species : multiple species
Method : OECD Test Guideline 406
Result : May cause sensitization by skin contact.

Test Type : Local lymph node test
Species : mice
Assessment : May cause sensitization by skin contact.
Method : OECD Test Guideline 429
Result : Causes sensitization.
GLP : yes

Remarks : Causes sensitization.

Components:

calcium dodecylbenzenesulphonate:

Test Type : Maximization Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Not a skin sensitizer.
Remarks : Based on data from similar materials

Fatty acids, C6-10, Me esters:

Routes of exposure : Skin contact
Species : Guinea pig
Result : Not a skin sensitizer.

methanol:

Test Type : Maximization Test
Species : Guinea pig
Result : Not a skin sensitizer.

Germ cell mutagenicity

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

Product:

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

Genotoxicity in vivo	:	Test Type: Bone marrow chromosome aberration. Species: Mouse Method: OECD Test Guideline 474 Result: negative
Germ cell mutagenicity - Assessment	:	Contains no ingredient listed as a mutagen

Components:

calcium dodecylbenzenesulphonate:

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	:	Test Type: chromosome aberration assay Species: Rat (male and female) Application Route: Oral Exposure time: 90 d 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.

2-ethylhexan-1-ol:

Genotoxicity in vitro	:	Test Type: reverse mutation assay Method: OECD Test Guideline 471 Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Application Route: Intraperitoneal injection Result: negative

Fatty acids, C6-10, Me esters:

Genotoxicity in vitro	:	Test Type: Ames test Result: negative
Germ cell mutagenicity - Assessment	:	In vitro tests did not show mutagenic effects

methanol:

Genotoxicity in vitro	:	Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster fibroblasts Result: negative Test Type: reverse mutation assay Test system: Salmonella typhimurium Method: OECD Test Guideline 471

Result: negative

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

Carcinogenicity

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

Product:

Carcinogenicity - Assessment : Contains no ingredient listed as a carcinogen

Components:

calcium dodecylbenzenesulphonate:

Species	:	Rat, male and female
Application Route	:	Oral
Exposure time	:	720 d
NOAEL	:	250 mg/kg body weight
Result	:	negative
Remarks	:	Based on data from similar materials

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

2-ethylhexan-1-ol:

Species	:	Rat
Application Route	:	Oral
Exposure time	:	24 month(s)
Result	:	negative

methanol:

Species	:	Mouse, male and female
Application Route	:	inhalation (vapor)
Exposure time	:	18 month(s)
NOAEC	:	1.3 mg/l
Result	:	negative

Species	:	Rat, male and female
Application Route	:	inhalation (vapor)
Exposure time	:	2 Years
NOAEC	:	1.3 mg/l
Result	:	negative

Reproductive toxicity

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

Product:

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

Components:

calcium dodecylbenzenesulphonate:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Rat, male and female
Application Route: Ingestion
General Toxicity Parent: NOAEL: 400 mg/kg body weight
Method: OECD Test Guideline 422
Result: negative

Effects on fetal development : Test Type: reproductive and developmental toxicity study
Species: Rat
Application Route: Ingestion
General Toxicity Maternal: NOAEL: 300 mg/kg body weight
Developmental Toxicity: NOAEL: 600 mg/kg body weight
Method: OECD Test Guideline 422
Result: negative

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

2-ethylhexan-1-ol:

Effects on fetal development : Test Type: Embryo-fetal development
Species: Mouse
Application Route: Oral
Method: OECD Test Guideline 414
Result: negative

methanol:

Effects on fertility : Test Type: one-generation reproductive toxicity
Species: Monkey, female
Application Route: inhalation (vapor)
General Toxicity F1: NOAEC: 2.39 mg/l
Result: negative

Test Type: Two-generation study
Species: Rat, male and female
Application Route: inhalation (vapor)
General Toxicity F1: LOAEC: 1.3 mg/l
General Toxicity F2: LOAEC: 1.3 mg/l
Result: negative

Effects on fetal development : Test Type: Pre-natal
Species: Mouse
Application Route: inhalation (vapor)
Developmental Toxicity: NOAEC: 6.65 mg/L
Result: Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses

Test Type: Pre-natal
Species: Rat
Application Route: inhalation (vapor)
Developmental Toxicity: NOAEC: 1.33 mg/L
Result: Embryotoxic effects and adverse effects on the off-spring were detected only at high maternally toxic doses

STOT-single exposure

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

Product:

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

Components:

2-ethylhexan-1-ol:

Assessment : May cause respiratory irritation.

methanol:

Target Organs : Central nervous system, Eyes
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 1.

STOT-repeated exposure

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

Product:

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

Repeated dose toxicity

Components:

calcium dodecylbenzenesulphonate:

Species : Rat, male and female
NOAEL : 85 mg/kg
LOAEL : 145 mg/kg
Application Route : Oral
Exposure time : 9 Months
Remarks : Based on data from similar materials

Species : Rat, male
LOAEL : 286 mg/kg
Application Route : Skin contact
Exposure time : 15 Days
Remarks : Based on data from similar materials

Species : Rat, male and female
NOAEL : 100 mg/kg bw/day

LOAEL	:	200 mg/kg bw/day
Application Route	:	Oral - gavage
Exposure time	:	28 - 54 Days
Method	:	OECD Test Guideline 422
Remarks	:	Based on data from similar materials

2-ethylhexan-1-ol:

Species	:	Rat
	:	250 mg/kg
Application Route	:	Oral
Exposure time	:	13 Weeks
Method	:	OECD Test Guideline 408

methanol:

Species	:	Monkey
LOAEL	:	2,340 mg/kg
Application Route	:	Ingestion
Exposure time	:	3 days

Species	:	Rat
NOEC	:	0.13 mg/l
LOAEL	:	1.3 mg/l
Application Route	:	inhalation (vapor)
Exposure time	:	12 months
Remarks	:	No toxicologically significant effects were found.

Aspiration toxicity

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

Product:

No aspiration toxicity classification

Experience with human exposure

Components:

methanol:

Ingestion	:	Target Organs: Eyes Remarks: Based on Human Evidence

Further information

Product:

Remarks	:	No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 37 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.215 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: yes EC50 (Daphnia magna (Water flea)): 0.00947 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: yes EC50 (Daphnia magna (Water flea)): 20.4 µg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 63.8 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes
Toxicity to soil dwelling organisms	:	LC50 (worms): > 1,000 mg/kg
Toxicity to terrestrial organisms	:	LD50 (Apis mellifera (bees)): 3.79 µg/bee Exposure time: 72 h End point: Acute oral toxicity LD50 (Apis mellifera (bees)): 6.31 µg/bee Exposure time: 96 h End point: Acute contact toxicity NOEC (Colinus virginianus (Bobwhite quail)): 2,250 mg/kg End point: Acute oral toxicity Method: US EPA Test Guideline OPP 71-1 LD50 (Colinus virginianus (Bobwhite quail)): > 2,250 mg/kg End point: Acute oral toxicity Method: US EPA Test Guideline OPP 71-1

Ecotoxicology Assessment

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

Components:

calcium dodecylbenzenesulphonate:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 10 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: Based on data from similar materials LC50 (Pimephales promelas (fathead minnow)): 4.6 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)): 3.5 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	NOEC (Pseudokirchneriella subcapitata (green algae)): 7.9 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials EC50 (Pseudokirchneriella subcapitata (green algae)): 65.4 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)	:	NOEC (Daphnia magna (Water flea)): 1.65 mg/l Exposure time: 21 d Remarks: Based on data from similar materials NOEC (Daphnia magna (Water flea)): 1.18 mg/l Exposure time: 21 d Remarks: Based on data from similar materials
Toxicity to microorganisms	:	EC50 (activated sludge): 500 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): 1,000 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207
Toxicity to terrestrial organisms	:	LD50 (Colinus virginianus (Bobwhite quail)): 1,356 mg/kg Exposure time: 14 d Method: OECD Test Guideline 223

2-ethylhexan-1-ol:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 17.1 - 28.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 39 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC10 (Desmodesmus subspicatus (green algae)): 3.2 mg/l Exposure time: 72 h
		EC50 (Desmodesmus subspicatus (green algae)): 11.5 mg/l Exposure time: 72 h
Toxicity to microorganisms	:	EC50 (Anabaena flos-aquae (cyanobacterium)): 16.6 mg/l Exposure time: 72 h

Fatty acids, C6-10, Me esters:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 95 mg/l Exposure time: 48 h Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Gammarus fasciatus (freshwater shrimp)): 14.7 mg/l Remarks: Based on data from similar materials

methanol:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 15,400 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 18,260 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	:	EC50 (Selenastrum capricornutum (green algae)): ca. 22,000 mg/l Exposure time: 96 h
Toxicity to fish (Chronic toxicity)	:	NOEC (Pimephales promelas (fathead minnow)): 450 mg/l Exposure time: 28 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 208 mg/l Exposure time: 21 d
Toxicity to microorganisms	:	EC50 (activated sludge): 19,800 mg/l Exposure time: 96 h

Persistence and degradability

Product:

Biodegradability	:	Remarks: Product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

Components:

calcium dodecylbenzenesulphonate:

Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 301E

2-ethylhexan-1-ol:

Biodegradability : Result: Readily biodegradable.

Fatty acids, C6-10, Me esters:

Biodegradability : Result: Readily biodegradable.

methanol:

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data is available on the product itself.

Remarks: No data available

Components:

calcium dodecylbenzenesulphonate:

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 70.79
Method: QSAR

Partition coefficient: n-octanol/water : log Pow: 4.77 (25 °C)

2-ethylhexan-1-ol:

Partition coefficient: n-octanol/water : log Pow: 2.9 (25 °C)

methanol:

Partition coefficient: n-octanol/water : log Pow: -0.77 (20 °C)

Mobility in soil

Product:

Distribution among environmental compartments : Remarks: No data is available on the product itself.

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.

SECTION 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. Appropriate personal protective equipment, as described in Sections 7 and 8, should be worn when handling materials for waste disposal.
Contaminated packaging	:	Containers must be disposed of in accordance with local, state and federal regulations. It is prohibited to reuse, bury, burn or sell containers. Washable containers: Triple wash containers smaller than 20 liters and pressure wash containers of 20 liters or more. Triple wash: Add water up to ¼ of the container's capacity, close and shake for 30 seconds. Pour the wash water into the mixing tank, considering this volume of water within the recommended volume for mixing. Perform this procedure three times. Pressure washing: Activate the pressure washing device for 30 seconds, considering the volume of water used as part of the recommended volume for the mixture. For both procedures, make the container unusable by piercing it at the base without damaging the label. Non-washable containers: Containers that cannot be washed, make them unusable by perforating them without damaging the label. In all cases, deliver the containers to collection points indicated by the local container collection program. For more information on the Empty Pesticide Container Management Plan, visit http://campolimpio.org.mx/.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cyantraniliprole)
Class	:	9
Packing group	:	III

Labels	:	9
Environmentally hazardous	:	yes

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (Cyantraniliprole)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cyantraniliprole)
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.

Domestic regulation

NOM-002-SCT

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cyantraniliprole)
Class	:	9
Packing group	:	III
Labels	:	9

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.

SECTION 15. REGULATORY INFORMATION

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

This document has been prepared in accordance with the Globally Harmonized System (GHS). The document consists of 16 points that cover the Official Mexican STANDARD NOM-018-STPS-2015 Harmonized system for the identification and communication of hazards and risks due to dangerous chemical substances in the workplace. 271000

Federal Law for the control of chemical precursors, essential chemical products and machinery for producing capsules, tablets and pills.	:	Not applicable

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

TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
AIIC	:	Not in compliance with the inventory
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

SECTION 16. OTHER INFORMATION

Revision Date	:	27.02.2025
Date format	:	dd.mm.yyyy

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
MX BEI	:	Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for workers occupationally exposed to chemical agents
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NOM-010-STPS-2014 / VLE-PPT	:	Time weighted average limit value
NOM-010-STPS-2014 / VLE-CT	:	Short term exposure limit value

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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Prepared by:

FMC Corporation

End of Material Safety Data Sheet