



SAFETY DATA SHEET

Talstar 2SC

SDS #: FO004017-A
Revision date: 2021-11-03
Format: AP
Version 2

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Talstar 2SC
Product Code(s)	FO004017-A
Synonyms	BIFENTHRIN: (2-methyl[1,1'-biphenyl]-3-yl)methyl (1R,3R)-rel-3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethylcyclopropanecarboxylate (CAS name); 2-methylbiphenyl-3-ylmethyl (Z)-(1RS,3RS)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)- 2,2-dimethylcyclopropanecarboxylate (IUPAC name) Xanthan Gum
Active Ingredient(s)	Bifenthrin
Chemical Family	Pyrethroid Pesticide
Recommended Use:	Insecticide
Restrictions on Use:	Use as recommended by the label.
Manufacturer/Supplier	FMC Corporation 2929 Walnut Street Philadelphia, PA 19104 (215) 299-6000 (General Information) SDS-Info@fmc.com (E-Mail General Information)
Emergency telephone	Medical Emergencies: 0800 140 1447 For leak, fire, spill or accidents: 001-803-017-9114 (CHEMTREC Indonesia) 1 703 741-5970 (CHEMTREC – International)

Section 2: HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity - Oral	Category 4
STOT - single exposure	Category 1
Specific target organ toxicity (repeated exposure)	Category 1
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Label Elements



Signal Word: Danger**Hazard Statements**

H302 - Harmful if swallowed
H370 - Causes damage to organs
H372 - Causes damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention

P202 - Do not handle until all safety precautions have been read and understood
P281 - Use personal protective equipment as required
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P273 - Avoid release to the environment

Precautionary Statements - Response

P308 + P311 - If exposed or concerned: Call a POISON CENTER or doctor
P321 - Specific treatment (see supplemental first aid instructions on this label)
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
P330 - Rinse mouth
P391 - Collect spillage

Precautionary Statements - Storage

P405 - Store locked up

Precautionary Statements - Disposal

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

Other Information

Very toxic to aquatic life with long lasting effects.
May be harmful in contact with skin.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms BIFENTHRIN: (2-methyl[1,1'-biphenyl]-3-yl)methyl
(1R,3R)-rel-3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethylcyclopropanecarboxylate (CAS name);
2-methylbiphenyl-3-ylmethyl (Z)-(1RS,3RS)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)- 2,2-dimethylcyclopropanecarboxylate (IUPAC name) Xanthan Gum

Chemical name	CAS-No	Weight %
Bifenthrin	82657-04-3	2
Propylene glycol	57-55-6	5-10

Section 4: FIRST AID MEASURES**Inhalation**

Move to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a physician or poison control center immediately.

Skin Contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

Eye Contact

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

Ingestion

Call a physician or poison control center immediately. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Central nervous system effects.

Indication of immediate medical attention and special treatment needed, if necessary

This product contains a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Treatment is symptomatic and supportive.

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Foam, Dry chemical or CO2. Soft stream or water fog only if necessary. Contain all runoff.
Unsuitable extinguishing media	No information available
Specific Hazards Arising from the Chemical	Keep product and empty container away from heat and sources of ignition.
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate upwind.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate and post spill area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.
Other	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
Environmental Precautions	Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.
Methods for Containment	Dike to confine spill and absorb with non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label contents for disposal.
Methods for cleaning up	Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

Section 7: HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container.
Materials to avoid	None known

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	China	Japan	Korea	Australia	Taiwan
Propylene glycol 57-55-6 (5-10)				TWA 150 ppm TWA 474 mg/m ³ TWA 10 mg/m ³	

Engineering measures	Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
-----------------------------	--

Personal protective equipment

Respiratory Protection	For dust, splash, mist or spray exposures wear a elastomeric full-face or half mask respirator with appropriate cartridges and/or filters which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization).
Hand Protection	Wear chemical protective gloves made of materials such as nitrile or neoprene. Wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.
Eye/Face Protection	For dust, splash, mist or spray exposure, wear chemical protective goggles.
Skin and Body Protection	Wear long-sleeved shirt, long pants, socks, and shoes.
Hygiene measures	Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	White Liquid
Odor	Mild Soapy
Color	White
Odor threshold	No information available
pH	7.0
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	> 100 °C / 212 °F Tag Closed Cup
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	1.020- 1.040
Water solubility	Soluble in water
Solubility(ies)	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Molecular weight	422.88 (bifenthrin)
Relative density	No information available
Bulk density	No information available

Section 10: STABILITY AND REACTIVITY

Reactivity	Not applicable
Stability	Stable under recommended storage conditions
Hazardous reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	Heat, flames and sparks.
Incompatible products	No information available.

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO₂), Chlorine, fluorine, Hydrogen chloride,

Hydrogen fluoride.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Numerical measures of toxicity - Product Information

LD50 Oral : Similar formulation 505 mg/kg (rat)
 LD50 Dermal : Similar formulation > 2,000 mg/kg (rabbit)
 LC50 Inhalation (dust) : Similar formulation 8.7 mg/L 4 hr (rat)

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation (vapor)
Magnesium Nitrate (10377-60-3)	= 5440 mg/kg (Rat)		
Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone (55965-84-9)	= 53 mg/kg (Rat)		
Propylene glycol (57-55-6)	20000 mg/kg (Rat)	20800 mg/kg (Rabbit)	
Magnesium Chloride (7786-30-3)	= 2800 mg/kg (Rat)		
Poloxamer (9003-11-6)	= 16 g/kg (Rat) = 5700 mg/kg (Rat)		= 320 mg/m ³ (Rat) 4 h
Bifenthrin (82657-04-3)	55 mg/kg (rat)	> 2000 mg/kg (rat)	0.8 mg/L (female, rat) 4 h

Skin corrosion/irritation : Similar formulation. Slightly or non-irritating (rabbit).
 Serious eye damage/eye irritation : Similar formulation. Slightly or non-irritating (rabbit).
 Sensitization : Sensitizer.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Mutagenicity Bifenthrin: Not genotoxic in laboratory studies.

Carcinogenicity Bifenthrin: Weak response, treatment related urinary bladder benign tumors (lesions) in male mice only at the highest dose tested

Reproductive toxicity Bifenthrin: No toxicity to reproduction in animal studies.

Developmental toxicity Bifenthrin: Not teratogenic in animal studies.

STOT - single exposure Causes damage to organs. See listed target organs below.
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure. See listed target organs below.

Chronic toxicity No data available for the formulation. In studies with laboratory animals, bifenthrin did not cause reproductive toxicity or teratogenicity. Tremors were associated with repeated exposure of laboratory animals to bifenthrin. In lifetime feeding studies conducted with rodents, a slight increase in the incidence of bladder tumors at high doses in male mice was considered an equivocal answer, there is no clear evidence about the effect associated with the compound. An overall absence of genotoxicity has been demonstrated.

Target organ effects Central Nervous System,

Neurological effects Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Bifenthrin (82657-04-3)				
Active Ingredient(s)	Duration	Species	Value	Units
	14-day LC50	Eisenia fetida	> 8	mg/kg soil
	LD50	Bobwhite quail	1800	mg/kg
	96 h LC50	Salmo gairdneri	0.1	µg/L
	48 h EC50	Daphnia magna	0.11	µg/L
	21 d NOEC	Daphnia magna	0.00095	µg/L
	21 d NOEC	Pimephales promelas	1.86	µg/L
	30 d NOEC	Salmo gairdneri	0.012	µg/L

Persistence and degradability	Bifenthrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.
Bioaccumulation	Bifenthrin: The substance has a potential for bioconcentration.
Mobility	Bifenthrin: Immobile. Not expected to reach groundwater.
Other Adverse Effects	No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste disposal methods	Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.
Contaminated containers and packages	Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

UN/ID no	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.(Bifenthrin)
Hazard class	9
Packing Group	III
EmS No.	F-A, S-F
Environmental Hazards	Bifenthrin

ICAO/IATA

UN/ID no	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.(Bifenthrin)
Hazard class	9
Packing Group	III
Environmental Hazards	Bifenthrin

Section 15: REGULATORY INFORMATION

International Inventories

A food, food additive, drug, cosmetic, or device, when manufactured, processed or distributed in commerce for use as a food, food additive, drug, cosmetic, or device may not be subject to local notification requirements. Check local regulations for more information.

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Bifenthrin 82657-04-3				X	X	X		
Propylene glycol 57-55-6	X	X	X	X	X	X	X	X

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Section 16: OTHER INFORMATION

Prepared By: FMC Corporation

FMC Logo - Trademark of FMC Corporation

© 2021 FMC Corporation. All Rights Reserved.

Revision date: 2021-11-03

Revision note: SDS sections updated.

Disclaimer

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use are beyond the control of FMC Corporation, FMC corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information

End of Safety Data Sheet