SAFETY DATA SHEET

Iprodione 500 SC

SDS # : 7072-A
Revision date: 2020-01-21
Format: AP
Version 1

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name Iprodione 500 SC

Product Code(s) 7072-A

Recommended Use: Fungicide

Restrictions on Use: Use as recommended by the label.

Manufacturer/Supplier

FMC Corporation
Agricultural Solutions
2929 Walnut Street
Philadelphia, PA 19104
General Information:
Phone: (215) 299-6000
E-Mail: msdsinfo@fmc.com

Telephone: 86 21 20675888
Telefax: 86 21 20675858

Emergency telephone 86 532 8388 9090

Section 2: HAZARDS IDENTIFICATION

GHS Classification

Carcinogenicity	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Label Elements

Signal Word **WARNING**

Hazard Statements
H351 - Suspected of causing cancer
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
P308 + P313 - If exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage
P405 - Store locked up
Precautionary Statements - Disposal
P501 - Dispose of contents/container to an approved waste disposal plant

Other Information
None known.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
Iprodione	36734-19-7	41
Propylene glycol	57-55-6	<8

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 poison control center or doctor for further treatment advice.

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 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for further treatment advice.

Ingestion
Call a poison control center or doctor immediately for treatment advice. 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. Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting - seek medical advice.

Most important symptoms and effects, both acute and delayed
In animal tests on iprodione, the main symptom was reduced activity.

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Indication of immediate medical attention and special treatment needed, if necessary
Immediate medical attention is required in case of ingestion or eye contact. It may be helpful to show this safety data sheet to physician. Notes to physician: A specific antidote for exposure to this material is not known. Gastric lavage and/or the administration of activated charcoal can be considered. After decontamination, treatment should be directed at the control of symptoms and the clinical condition.

Section 5: FIRE FIGHTING MEASURES

Explosive properties
Not explosive.

Suitable Extinguishing Media
Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams.

Unsuitable extinguishing media
No information available

Specific Hazards Arising from the Chemical
The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as nitrogen oxides, hydrogen chloride, carbon monoxide, carbon dioxide and various chlorinated organic compounds.

Protective equipment and precautions for firefighters

Use water spray to cool fire exposed surfaces and protect personnel. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles Dike to prevent runoff. Wear self-contained breathing apparatus and protective suit

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions

It is recommended to have a predetermined plan for the handling of spills. Empty, closable vessels for the collection of spills should be available.

In case of large spill (involving 1 tonnes of the product or more):

1. use personal protection equipment (see Section 8)
2. call emergency telephone number in Section 1.
3. alert authorities.

Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and rubber boots. Stop the source of the spill immediately if safe to do so. Keep unprotected persons away from the spill area.

Other

For further clean-up instructions, call Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

Environmental Precautions

Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

Methods for Containment

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping.

If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should be absorbed onto an absorptive material such as universal binder, attapulgite, bentonite or other absorbent clays. Collect the contaminated absorbent in suitable containers. Clean area with much water and industrial detergent. Absorb wash liquid onto absorbent and transfer to suitable containers. The used containers should be properly closed and labelled.

Large spills which soak into the ground should be dug up and transferred to suitable containers.

Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or 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. See section 8 for personal protection. Dispose of waste as indicated in Section 13.

Section 7: HANDLING AND STORAGE

Handling

In an industrial environment, it is recommended to avoid any personal contact with the product, if possible, using remotely controlled systems with remote control. Otherwise, it is recommended to process the material with maximum mechanical means. Adequate ventilation or local exhaust ventilation is required. Exhaust gases must be filtered or treated differently. For personal protection in this situation, see Section 8.

Remove contaminated clothing and shoes. Wash thoroughly after handling. Use protective gloves made from chemicals such as nitrile or neoprene. Wash gloves with soap and water before reuse. Check regularly for leaks. Do not dispose into the environment. Do not

contaminate water when disposing of the flushing water for equipment. Collect all waste and residues from cleaning equipment, etc. And dispose of them as hazardous waste. See Section 13 for disposal.

Storage

Keep away from open flames, hot surfaces and sources of ignition. 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. A warning sign reading “POISON” is recommended. 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.

Materials to avoid

Strong acids, Strong bases, Strong oxidizing agents Strong oxidizing agents, Strong acids, Strong bases.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	China	Japan	Korea	Australia	Taiwan
Propylene glycol 57-55-6 (<8)				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

The product does not automatically present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material which produces a heavy vapour or mist, workers should put on officially approved respiratory protection equipment with a universal filter type including particle filter.

Hand Protection

Wear chemical protective gloves made of materials such as nitrile or neoprene.

Eye/Face Protection

For dust, splash, mist or spray exposure, wear chemical protective goggles.

Skin and Body Protection

Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of appreciable or prolonged exposure, coveralls of barrier laminate may be required.

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 Suspension
Odor	Characteristic
Color	White
Odor threshold	No information available
pH	4.0-6.0
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	No information available
Evaporation Rate	No information available
Flammability (solid, gas)	Not applicable

Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	Iprodione: 5 x 10^{-7} Pa@ 25°C
Vapor density	No information available
Specific gravity	No information available
Water solubility	Dispersible in water
Solubility(ies)	Solubility of iprodione at 20°C in:
Acetone: 520 mg/l	
hexane: 12.2 mg/l	
water: approx. 0.5 mg/l	
Partition coefficient	Iprodione : log Kow = 3.0 at 25°C and pH 5
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	Not explosive
Oxidizing properties	Non-oxidizing
Molecular weight	No data available
Relative density	1.16
Bulk density	No information available

Section 10: STABILITY AND REACTIVITY

Reactivity To our knowledge, the product has no special reactivities.

Stability The product is stable during normal handling and storage at ambient temperatures.

Hazardous reactions None known.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to Avoid Heating of the product will produce harmful and irritant vapors.

Incompatible products Strong oxidizing agents, Strong acids, Strong bases.

Hazardous Decomposition Products Carbon oxides (COx). Nitrogen oxides (NOx). Sulfur oxides. Hydrogen chloride. Hydrogen fluoride.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Numerical measures of toxicity - Product Information

LD50 Oral	> 2,000 mg/kg (rat)
LD50 Dermal	> 2,000 mg/kg (rat)
Skin corrosion/irritation	No skin irritation.
Serious eye damage/eye irritation	No eye irritation.
Sensitization	Non-sensitizer.

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

Mutagenicity	The product contains no ingredients known to be mutagenic.
Carcinogenicity	Iprodione: Animal experiments showed a statistically significant number of benign tumors (testicular, liver, and ovarian).
Reproductive toxicity	The product contains no ingredients known to have adverse effects on reproduction.
STOT - single exposure	No specific effects after single exposure have been observed.
STOT - repeated exposure	No toxicologically significant effects were found.
Target organ effects	The following has been measured on the active ingredient iprodione: Target organs: liver, reproductive organs and adrenals

NOEL: 30.8 (male) - 35.8 (female) mg/kg bw/day in a 90-day rat study based on increase of liver weight.
At higher doses: atrophy of prostate and uterus, vacuolation of adrenals and reduced number of corpora lutea.

Symptoms In animal tests, the main symptom was reduced activity.

Aspiration hazard The product does not present an aspiration pneumonia hazard.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Iprodione (36734-19-7)				
Active Ingredient(s)	Duration	Species	Value	Units
Iprodione	48 h EC50	Crustacea	0.7	mg/L
	72 h EC50	Algae	1.8	mg/L
	96 h LC50	Fish	3.7	mg/L
	21 d NOEC	Fish	0.26	mg/L
	21 d NOEC	Crustacea	0.17	mg/L
	96 h NOEC	Algae	3.2	mg/L

Birds: Bobwhite quail (Colinus virginianus), LD50: > 2000 mg/kg

Bees: Honey bees (Apis mellifera): 48-h LD50, acute oral: > 25 µg/bee
48-h LD50, contact: > 250 µg/bee

Earthworms: Eisenia foetida andrei, 14-d LC50: > 1000 mg/kg soil

Persistence and degradability Iprodione is biodegradable, but does not meet the criteria for being readily biodegradable. It undergoes degradation in the environment and in waste water treatment plants. In aerobic soil and water it degrades with primary half-lives of a few weeks to a few months. Degradation products are not considered as harmful to soil dwelling or aquatic organisms.

Bioaccumulation See section 9 for n-octanol/water partition coefficient. Iprodione has a low bioaccumulation potential. Bioconcentration factor was determined to be 70 for whole fish (bluegill sunfish).

Mobility Iprodione is of low to medium mobility in soil. It is absorbed onto soil particles.

Other Adverse Effects None known.

Section 13: DISPOSAL CONSIDERATIONS

Waste disposal methods Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste. Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated containers and packages It is recommended to consider possible ways of disposal in the following order:

1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.

2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

3. Delivery of the packaging to a licensed service for disposal of hazardous waste.

4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

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

ICAO/IATA

UN/ID no	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.(iprodione)
Hazard class	9
Packing Group	III
Marine Pollutant	Yes

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)
Iprodione 36734-19-7			X		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/NDSL - 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

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Revision note Initial Release.

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End of Safety Data Sheet