

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Marshal® 35 DS insecticide

Other means of identification : Carbosulfan 35 wt% DS

#### 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

Company : FMC Corporation

Address : 2929 Walnut Street  
Philadelphia PA 19104  
USA

Telephone : 1 215 / 299-6000 (Corporate office in USA)

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

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### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Oral) : Category 3

Acute toxicity (Inhalation) : Category 2

Specific target organ toxicity - single exposure : Category 1 (Nervous system, Bladder, Gastro-intestinal system, Blood)

Specific target organ toxicity - repeated exposure : Category 1 (Nervous system, Bladder, Gastro-intestinal system, Blood)

Short-term (acute) aquatic hazard : Category 1

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

Long-term (chronic) aquatic hazard : Category 1

### GHS label elements

Hazard pictograms :



Signal Word : DANGER

Hazard Statements : H301 Toxic if swallowed.  
H330 Fatal if inhaled.  
H370 Causes damage to organs (Nervous system, Bladder, Gastro-intestinal system, Blood).  
H372 Causes damage to organs (Nervous system, Bladder, Gastro-intestinal system, Blood) through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**  
P260 Do not breathe dust.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P284 Wear respiratory protection.  
**Response:**  
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.  
P391 Collect spillage.  
**Storage:**  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards which do not result in classification

Dust can form an explosive mixture in air.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version 1.0      Revision Date: 2024/12/12      SDS Number: 50000368      Date of last issue: -  
Date of first issue: 2024/12/12

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
carbosulfan (ISO)	55285-14-8	>= 30 -< 60
Silicic acid, calcium salt	1344-95-2	>= 30 -< 60
9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride	81-88-9	>= 1 -< 2,5

## 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this material safety data sheet to the doctor in attendance.  
Symptoms of poisoning may appear several hours later.  
Do not leave the victim unattended.
- If inhaled : Call a physician or poison control center immediately.  
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Induce vomiting immediately and call a physician.  
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 : Toxic if swallowed.  
Fatal if inhaled.  
Causes damage to organs.  
Causes damage to organs through prolonged or repeated exposure.
- Notes to physician : Treat symptomatically.  
It may be helpful to show this safety data sheet to physician.  
This product contains a reversible cholinesterase inhibitor.  
Atropine sulfate is antidotal. If cyanosis is absent: Adults - start treatment by giving 2 mg atropine intravenously or intramuscularly, if necessary, and repeat with 0.4 - 2.0 mg atropine at 15 minute intervals until atropinization occurs (tachycardia,

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version 1.0	Revision Date: 2024/12/12	SDS Number: 50000368	Date of last issue: - Date of first issue: 2024/12/12
----------------	------------------------------	-------------------------	--

flushed skin, dry mouth, mydriasis); Children under 12 - initial dose = 0.05 mg/kg body weight and repeat dose = 0.02 - 0.05 mg/kg body weight. Use of oximes such as 2-PAM is controversial. Observe patient to ensure that these symptoms do not recur as atropinization wears off. If in eyes, instill one drop of homatropine. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

### 5. FIRE-FIGHTING MEASURES

- |  |   |
|--|---|
| Suitable extinguishing media                   | : Dry chemical, CO <sub>2</sub> , water spray or regular foam.  |
| Unsuitable extinguishing media                 | : High volume water jet<br>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 <sub>x</sub> )<br>Carbon oxides<br>Sulfur oxides  |
| Specific extinguishing methods                 | : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.<br>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.  |

### 6. ACCIDENTAL RELEASE MEASURES

- |   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment.<br>Avoid dust formation.<br>Avoid breathing dust.<br>Ensure adequate ventilation.<br>Evacuate personnel to safe areas.                               |
| Environmental precautions   | : Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<br>If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up               | : Keep in suitable, closed containers for disposal.<br>Pick up and transfer to properly labeled containers.   |

### 7. HANDLING AND STORAGE

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

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

- Advice on safe handling : Avoid formation of respirable particles.  
Do not breathe vapors/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Dispose of rinse water in accordance with local and national regulations.  
Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Conditions for safe storage : Prevent unauthorized access.  
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.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.
- Further information on storage stability : Keep in a dry place.  
No decomposition if stored and applied as directed.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Silicic acid, calcium salt	1344-95-2	NAB (Inhalable particulate matter)	1 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				

#### 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

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version 1.0	Revision Date: 2024/12/12	SDS Number: 50000368	Date of last issue: - Date of first issue: 2024/12/12
----------------	------------------------------	-------------------------	--

with the producers of the protective gloves.

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|--------------------------|--|
| Eye protection           | : Eye wash bottle with pure water<br>Tightly fitting safety goggles<br>Wear face-shield and protective suit for abnormal processing problems.  |
| Skin and body protection | : Dust impervious protective suit<br>Choose body protection according to the amount and concentration of the dangerous substance at the work place.                                  |
| Hygiene measures         | : Avoid contact with skin, eyes and clothing.<br>When using do not eat or drink.<br>When using do not smoke.<br>Wash hands before breaks and immediately after handling the product. |

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- |  |   |
|--|---|
| Physical state                         | : solid                                   |
| Form                                   | : Dry powder                              |
| Color                                  | : red                                     |
| Odor                                   | : phenol-like                             |
| Melting point/freezing point           | : No data available                       |
| Boiling point/boiling range            | : No data available                       |
| Flash point                            | : Not applicable                          |
| Flammability (solid, gas)              | : Not classified as a flammability hazard |
| Self-ignition                          | : No data available                       |
| Vapor pressure                         | : No data available                       |
| Density                                | : 16 - 20 lb/scf                          |
| Solubility(ies)<br>Water solubility    | : No data available                       |
| Partition coefficient: n-octanol/water | : Not applicable                          |

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version 1.0	Revision Date: 2024/12/12	SDS Number: 50000368	Date of last issue: - Date of first issue: 2024/12/12
----------------	------------------------------	-------------------------	--

Viscosity	
Viscosity, kinematic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Non-oxidizing

### 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	: Contact with aqueous acids may produce carbofuran. Dust may form explosive mixture in air.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Strong acids and strong bases Strong oxidizing agents
Hazardous decomposition products	: Nitrogen oxides (NOx) Carbon oxides Sulfur oxides

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Toxic if swallowed.  
Fatal if inhaled.

#### Product:

Acute oral toxicity	: LD50 (Rat, male and female): 131 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat, male and female): 0,14 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: Based on data from a similar product.
Acute dermal toxicity	: LD50 (Rat, male and female): > 2.000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity

#### Components:

**carbosulfan (ISO):**

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

Acute oral toxicity : LD50 (Rat, female): 185 mg/kg

Acute inhalation toxicity : LC50 (Rat, female): 0,15 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

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

### **Silicic acid, calcium salt:**

Acute oral toxicity : LD50 (Rat, male and female): > 5.000 mg/kg  
Method: OECD Test Guideline 401  
Remarks: no mortality

Acute inhalation toxicity : LC0 (Rat, male and female): > 2,08 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Symptoms: irritant effects  
Remarks: no mortality  
Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg  
Method: OECD Test Guideline 402  
Symptoms: irritant effects  
Remarks: no mortality

### **9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylum chloride:**

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

### **Skin corrosion/irritation**

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

### **Product:**

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

### **Components:**

#### **carbosulfan (ISO):**

Species : Rabbit  
Result : slight irritation

#### **Silicic acid, calcium salt:**

Species : Rabbit  
Result : No skin irritation

### **9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylum chloride:**

Species : Rabbit  
Result : Skin irritation



# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

---

### Serious eye damage/eye irritation

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

#### Product:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405
Remarks	:	Minimal effects that do not meet the threshold for classification.

#### Components:

##### carbosulfan (ISO):

Species	:	Rabbit
Result	:	slight irritation

##### Silicic acid, calcium salt:

Species	:	Rabbit
Result	:	slight irritation

##### 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride:

Result	:	Irreversible effects on the eye
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### 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:

Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	US EPA Test Guideline OPP 81-6
Result	:	Does not cause skin sensitization.
Remarks	:	Based on data from a similar product.

#### Components:

##### carbosulfan (ISO):

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

##### Silicic acid, calcium salt:

Test Type	:	Local lymph node assay (LLNA)
Species	:	Mouse

**Marshal® 35 DS insecticide**

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

---

Method : OECD Test Guideline 429  
Result : Not a skin sensitizer.

**Germ cell mutagenicity**

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

**Components:****carbosulfan (ISO):**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Test system: Salmonella typhimurium  
Result: negative

Test Type: reverse mutation assay  
Test system: Escherichia coli  
Result: negative

Test Type: gene mutation test  
Test system: Chinese hamster cells  
Result: negative

Test Type: Chromosome aberration test in vitro  
Test system: Chinese hamster cells  
Result: negative

Genotoxicity in vivo : Test Type: chromosome aberration assay  
Species: mice  
Result: negative

**Silicic acid, calcium salt:**

Genotoxicity in vitro : Method: OECD Test Guideline 471  
Result: negative

Method: OECD Test Guideline 476  
Result: negative

Genotoxicity in vivo : Test Type: gene mutation test  
Species: Rat (male)  
Application Route: Inhalation  
Exposure time: 91 d  
Result: negative

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

**9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylum chloride:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Test system: Salmonella typhimurium  
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
Result: negative

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

---

Test Type: gene mutation test  
Test system: Chinese hamster lung cells  
Method: OECD Test Guideline 476  
Result: negative

### Carcinogenicity

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

#### Components:

##### **carbosulfan (ISO):**

Species : Mouse  
Exposure time : 2 Years  
NOAEL : 2,5 mg/kg bw/day  
Result : negative

Species : Rat  
Exposure time : 2 Years  
NOAEL : 1 mg/kg bw/day  
Result : negative

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

##### **Silicic acid, calcium salt:**

Species : Rat, male and female  
Application Route : Oral  
Exposure time : 721 d  
Method : OECD Test Guideline 453  
Result : negative

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

##### **9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylum chloride:**

Species : Mouse, female  
Application Route : Dermal  
Exposure time : 18 month(s)  
Dose : 121.4 mg  
Result : negative

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

### Reproductive toxicity

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

#### Components:

##### **carbosulfan (ISO):**

Effects on fertility : Test Type: Three-generation study  
Species: Rat

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

Application Route: Oral  
General Toxicity Parent: NOAEL: 1,2 mg/kg bw/day  
Fertility: NOAEL: 1,2 mg/kg bw/day  
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Oral  
General Toxicity Maternal: NOAEL: 2 mg/kg bw/day  
Developmental Toxicity: NOAEL: 2  
Result: negative

Test Type: Embryo-fetal development  
Species: Rabbit  
Application Route: Oral  
General Toxicity Maternal: NOAEL: 5 mg/kg bw/day  
Developmental Toxicity: NOAEL: 10  
Result: negative

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

### Silicic acid, calcium salt:

Effects on fertility : Test Type: reproductive and developmental toxicity study  
Species: Rat, male and female  
Application Route: Oral  
Method: OECD Test Guideline 415  
Result: negative

Effects on fetal development : Test Type: Pre-natal  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 414  
Result: negative

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

### STOT-single exposure

Causes damage to organs (Nervous system, Bladder, Gastro-intestinal system, Blood).

### Components:

#### carbosulfan (ISO):

Target Organs : Nervous system, Bladder, Gastro-intestinal system, Blood  
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 1.

### Silicic acid, calcium salt:

Remarks : No significant adverse effects were reported

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

---

### 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride:

Assessment : May cause respiratory irritation.

### STOT-repeated exposure

Causes damage to organs (Nervous system, Bladder, Gastro-intestinal system, Blood) through prolonged or repeated exposure.

### Components:

#### carbosulfan (ISO):

Target Organs : Nervous system, Bladder, Gastro-intestinal system, Blood  
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

### 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride:

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

### Repeated dose toxicity

### Components:

#### carbosulfan (ISO):

Species : Rat  
NOAEL : 2 mg/kg bw/day  
Application Route : Oral  
Exposure time : 90 days

Species : Dog  
NOAEL : 1.6 mg/kg bw/day  
Application Route : Oral  
Exposure time : 6 months

#### Silicic acid, calcium salt:

Species : Rat, male and female  
NOAEL : 2.500 mg/kg  
Application Route : Oral - feed  
Exposure time : 730 d  
Method : OECD Test Guideline 452

### 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride:

Species : Rat  
Application Route : Oral  
Exposure time : 12 weeks  
Dose : 50400 mg/kg/12W-C  
Symptoms : Reduced body weight

Species : Rat  
Application Route : Inhalation  
Exposure time : 13 weeks  
Dose : 110 mg/kg/13W-I

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version 1.0	Revision Date: 2024/12/12	SDS Number: 50000368	Date of last issue: - Date of first issue: 2024/12/12
----------------	------------------------------	-------------------------	--

Symptoms : Gained body weight

### Aspiration toxicity

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

### Components:

#### carbosulfan (ISO):

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

### Further information

#### Product:

Remarks : No data available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

#### carbosulfan (ISO):

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,015 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,0015 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (microalgae)): > 20 mg/l  
Exposure time: 96 h

M-Factor (Acute aquatic toxicity) : 100

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0,00828 mg/l  
Exposure time: 21 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0,0032 mg/l  
Exposure time: 21 d

M-Factor (Chronic aquatic toxicity) : 10

Toxicity to terrestrial organisms : (Apis mellifera (bees)): 1,035 µg/bee  
Remarks: Oral

(Apis mellifera (bees)): 0,18 µg/bee  
Remarks: Contact

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

---

LD50 (Anas platyrhynchos (Mallard duck)): 10 mg/kg

### Silicic acid, calcium salt:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 1.000 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EL50 (Daphnia magna (Water flea)): >= 10.000 mg/l  
aquatic invertebrates Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EL50 (Desmodesmus subspicatus (green algae)): > 1.000  
plants mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

### 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride:

Toxicity to fish : LC50 (Oryzias latipes (Orange-red killifish)): > 12 mg/l  
Exposure time: 48 h

LC50 (Lepomis macrochirus (Bluegill sunfish)): 100 mg/l  
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 217 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 22,9 mg/l  
aquatic invertebrates Exposure time: 48 h

### Persistence and degradability

#### Components:

#### carbosulfan (ISO):

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 28 %  
Exposure time: 28 d

Stability in water : Remarks: Hydrolyzes readily.

### 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride:

Biodegradability : Inoculum: activated sludge  
Result: Not readily biodegradable.  
Biodegradation: 0 %  
Exposure time: 28 d

### Bioaccumulative potential

#### Components:

#### carbosulfan (ISO):

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

Bioaccumulation : Species: Fish  
Bioconcentration factor (BCF): 990  
Remarks: Can accumulate in aquatic organisms.

Partition coefficient: n-octanol/water : log Pow: 5,37  
pH: 8  
Method: OECD Test Guideline 107

### 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride:

Partition coefficient: n-octanol/water : log Pow: 2

### Mobility in soil

#### Components:

#### carbosulfan (ISO):

Distribution among environmental compartments : Remarks: Slightly mobile in soils

### 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.

## 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 2757  
Proper shipping name : CARBAMATE PESTICIDE, SOLID, TOXIC  
(Carbosulfan)  
Class : 6.1  
Packing group : II



# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

Labels : 6.1  
Environmentally hazardous : yes

### IATA-DGR

UN/ID No. : UN 2757  
Proper shipping name : Carbamate pesticide, solid, toxic  
(Carbosulfan)  
Class : 6.1  
Packing group : II  
Labels : Toxic  
Packing instruction (cargo aircraft) : 676  
Packing instruction (passenger aircraft) : 669  
Environmentally hazardous : yes

### IMDG-Code

UN number : UN 2757  
Proper shipping name : CARBAMATE PESTICIDE, SOLID, TOXIC  
(Carbosulfan)  
Class : 6.1  
Packing group : II  
Labels : 6.1  
EmS Code : F-A, S-A  
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 : 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride

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

Hazardous substances approved for use : 2,2' -oxybisethanol

Prohibited substances : Not applicable

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version 1.0	Revision Date: 2024/12/12	SDS Number: 50000368	Date of last issue: - Date of first issue: 2024/12/12
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Restricted substances : 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.
AICS	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL.  2,3-DIHYDRO-2,2-DIMETHYLBENZOFURAN-7-YL (DIBUTYLAMINTHIO)METHYLCARBAMATE
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: On the inventory, or 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

## 16. OTHER INFORMATION

Revision Date	: 2024/12/12
Date format	: yyyy/mm/dd

### Full text of other abbreviations

ID OEL	: Indonesia. Occupational Exposure Limits
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

# SAFETY DATA SHEET



## Marshal® 35 DS insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2024/12/12	50000368	Date of first issue: 2024/12/12

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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

### Disclaimer

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