

SAFETY DATA SHEET



Indoxacarb

Version 1.0

Revision Date 2018.01.03

Document no. 130000027381

This SDS adheres to the standards and regulatory requirements of Korea and may not meet the regulatory requirements in other countries.

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Indoxacarb

Other names : DPX-KN128 150EC
B12109700

Recommended use of the chemical and restriction on use

Recommended use : Insecticide

Supplier identification

Company : FMC Korea Ltd.
Street address : 7th floor, Mijin Building, 111, Dogok-ro, Gangnam-gu, Seoul 06253, Republic of Korea
Telephone : +82-2-539-6411
Telefax : +82-2-567-4662

Emergency telephone number : +82-2-539-6411 for working time.
There is no emergency telephone no. for 24hours.

2. HAZARDS IDENTIFICATION

Product hazard classification

Acute toxicity (Oral) : Category 4
Specific target organ toxicity - single exposure : Category 2 (Central nervous system)
Specific target organ toxicity - repeated exposure : Category 1 (Central nervous system)
Chronic aquatic toxicity : Category 2

Endpoints which are not classified, cannot be classified or are not applicable are not shown.

Label content

Pictogram :



Signal word : Danger

Hazard statements : Harmful if swallowed.
May cause damage to organs. (Central nervous system)
Causes damage to organs through prolonged or repeated exposure. (Central nervous system)
Toxic to aquatic life with long lasting effects.

Precautionary : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

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statements

Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician.
Get medical advice/ attention if you feel unwell.
Rinse mouth.
Collect spillage.
Store locked up.
Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture

Components

Chemical Name	Other names	CAS-No.	Concentration
Indoxacarb	Indoxacarb Active (+) isomer	173584-44-6	15.84 %
2-Ethylhexan-1-ol	Octyl alcohol (2-ethyl-1-hexanol)	104-76-7	1 - 5%
Other Ingredients	No information available.		79.16 - 83.16%

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

Eye contact : Hold eye 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 eye. Call a poison control center or doctor for treatment advice.

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

Inhalation : Remove person to fresh air. If signs/symptoms continue, get medical attention. Artificial respiration and/or oxygen may be necessary.

Ingestion : Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Call a poison control center or doctor for treatment advice.

Most important symptoms/effects, acute and delayed : No information available.

Protection of first-aiders : No information available.

Indication of immediate medical attention and notes for physician : No information available.

5. FIREFIGHTING MEASURES

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Suitable extinguishing media	: Water spray, Foam, Dry chemical, Carbon dioxide (CO2)
Unsuitable extinguishing media	: High volume water jet, (contamination risk)
Specific hazards arising from the chemical	: No information available.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Specific extinguishing methods	: No information available.
Further information	: (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Use personal protective equipment.
Environmental precautions and protective procedures	: Prevent material from entering sewers, waterways, or low areas.
Methods and materials for containment and cleaning up	: Soak up with sawdust, sand, oil dry or other absorbent material. Dispose of in an approved container.
Additional advice	: Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Handling

Technical measures/Precautions	: Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.
Precautions for safe handling	: No information available.

Storage

Conditions for safe storage, including any incompatibilities	: Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store product in original container only in a location inaccessible to children and pets. Not for use or storage in or around the home. Keep out of the reach of children.
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Storage period: Storage temperature: > 0 °C

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

No information available.

Appropriate engineering controls : No information available.**Biological occupational exposure limits** : No information available.**Personal protective equipment****Respiratory protection** : Where there is potential for airborne exposures in excess of applicable limits, wear approved respiratory protection with dust/mist cartridge.**Eye protection** : Wear protective eyewear to prevent contact with this substance.**Hand protection** : Material: Protective gloves**Body Protection** : Wear protective clothing such as gloves, apron, boots, or coveralls, as appropriate.**Hygiene measures** : Avoid contact with skin, eyes and clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wash all protective clothing after use.**Protective measures** : End users of this product should follow label instructions for personal protection when using this product.
All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated.
Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance (Physical state, form, colour, etc.)****Physical state** : liquid
Form : liquid
Colour : amber**Odour** : faint burn smell**Odour Threshold** : No information available.**pH** : 6.6 (20 °C)
(1% solution in water)**Melting point/freezing point**

No information available.

Initial boiling point and boiling range

No information available.

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Flash point	: 69 °C
Evaporation rate	: No information available.
Flammability (solid, gas)	: No information available.
Upper/lower flammability or explosive limits	
Upper explosion limit	: No information available.
Lower explosion limit	: No information available.
Vapour pressure	: No information available.
Solubility(ies)	
Water solubility	: No information available.
Vapour density	: No information available.
Density	
Density	: (20 °C)
Partition coefficient: n-octanol/water	: No information available.
Auto-ignition temperature	
No information available.	
Decomposition temperature	: No information available.
Viscosity	
Viscosity, kinematic	: No information available.
Viscosity, dynamic	: 5.6 mPa.s (25 °C)
Molecular weight	: No information available.

10. STABILITY AND REACTIVITY

Reactivity	: No information available.
Chemical stability	: Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions	: No information available.
Conditions to avoid	: No information available.
Incompatible materials	: None reasonably foreseeable.
Hazardous decomposition products	: No information available.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Respiratory system	Refer to below subheading
Oral	Refer to below subheading

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Eye/Skin contact

Refer to below subheading

Acute toxicity

Oral

Indoxacarb : LD50/Rat female: 977 mg/kg

Inhalation

Indoxacarb : LC50/4 h/Rat(dust/mist): > 5.2 mg/l
The substance or mixture has no acute inhalation toxicity

Dermal

Indoxacarb : LD50/Rat: > 5,000 mg/kg

Skin corrosion/irritationIndoxacarb : Species: Rabbit
Result: Mild skin irritation**Serious eye damage/eye irritation**Indoxacarb : Species: Rabbit
Result: No eye irritation**Respiratory or skin sensitisation**Indoxacarb : Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.**Carcinogenicity**Indoxacarb : Animal testing did not show any carcinogenic effects.
2-Ethylhexan-1-ol : Not classifiable as a human carcinogen.
Animal testing did not show any carcinogenic effects.**Germ cell mutagenicity**Indoxacarb : Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Animal testing did not show any mutagenic effects.
2-Ethylhexan-1-ol : Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals.**Reproductive toxicity**Indoxacarb : Reproductive toxicity: Animal testing did not show any effects on fertility.
No toxicity to reproduction
Teratogenicity: Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.
2-Ethylhexan-1-ol : Teratogenicity: Animal testing showed no developmental toxicity.**Specific Target Organ Toxicity**

Specific target organ toxicity - single exposure

Indoxacarb : Target Organs: Central nervous system
The substance or mixture is classified as specific target organ toxicant, single exposure, category 2.

Specific target organ toxicity - repeated exposure

Indoxacarb : Refer to acute toxicity and/or repeated dose toxicity data for more information on target organs if applicable.

Aspiration hazard

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Indoxacarb : No aspiration toxicity classification

Other

Indoxacarb : Repeated dose toxicity:
Inhalation/Rat
Target Organs: Central nervous system, Blood
Central nervous system effects, Incoordination, Increased mortality or reduced survival, altered hematology
Oral/multiple species
Target Organs: Blood
altered hematology

2-Ethylhexan-1-ol : Repeated dose toxicity:
Oral/Rat
NOAEL: 250 mg/kg
No toxicologically significant effects were found.
Inhalation/Rat
No toxicologically significant effects were found.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute and prolonged toxicity to fish

Indoxacarb : LC50/96 h/Oncorhynchus mykiss (rainbow trout): 7.0 mg/l

Toxicity to aquatic plants

Indoxacarb : ErC50/72 h/Pseudokirchneriella subcapitata (green algae): > 16 mg/l

Acute toxicity to aquatic invertebrates

Indoxacarb : EC50/48 h/Daphnia magna (Water flea): 1.67 mg/l

Chronic toxicity to fish

Indoxacarb : Early Life-Stage/NOEC/90 d/Oncorhynchus mykiss (rainbow trout): 0.15 mg/l

Chronic toxicity to aquatic Invertebrates

Indoxacarb : NOEC/21 d/Daphnia magna (Water flea): 0.9 mg/l

Persistence and degradability

Indoxacarb : Result: Readily biodegradable

2-Ethylhexan-1-ol : Result: Biodegradable
Readily biodegradable

Bioaccumulation

Indoxacarb : Species: Lepomis macrochirus (Bluegill sunfish)
Exposure time: 21 d
Bioconcentration factor (BCF): 77.3
Method: OECD Test Guideline 305
Does not bioaccumulate. Information source: Internal study report

2-Ethylhexan-1-ol : Bioaccumulation is unlikely.

Mobility in soil

No information available.

Other adverse effects

Indoxacarb : See product label for additional application instructions relating to

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environmental precautions.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods : In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container.

Disposal precaution (including the disposal method of contaminated container and packaging) : Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

IMDG

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

IATA

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

Matters needing attention for transportation : Not applicable

15. REGULATORY INFORMATION

Industrial Safety and Health Act
not regulated

Chemicals Control Act
not regulated

Dangerous Substance Safety Management Act
not regulated

Waste Control Act
Dispose of in accordance with local regulations.

Regulations in other countries
No information available.

16. OTHER INFORMATION

References

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SDS Number: 130000027381

This MSDS is translated to Korean by FMC in accordance with Korea ISHA requirements based on the global MSDS of the FMC Company.

Revision Date/Version

Date of first preparation : 2018.01.03

Revision Date : 2018.01.03

Version : 2.0

Take notice of the directions of use on the label.

Significant change from previous version is denoted with a double bar.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.