

Thyborønvej 78 DK-7673 Harboøre

Denmark +45 9690 9690 www.fmc.com

CVR No. DK 12 76 00 43

Material group	-	Page 1 of 12
Product name	EXPLICIT®	
		March 2018
Safety data shee	t according to EU Reg. 1907/2006 as amended	Supersedes 04.10.2016

# SAFETY DATA SHEET **EXPLICIT®**

Revision: Sections containing a revision or new information are marked with a .

# ♣ SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**EXPLICIT®** 1.1. Product identifier .....

1.2. Relevant identified uses of the substance or mixture and uses

advised against ..... Can be used as insecticide only.

1.3. Details of the supplier of the safety

data sheet

**CHEMINOVA A/S**, a subsidiary of FMC Corporation

Thyborønyei 78 DK-7673 Harboøre

Denmark

SDS.Ronland@fmc.com

1.4. Emergency telephone number

Medical emergencies:

Austria: +43 1 406 43 43 Norway: +47 22 591300 Belgium: +32 70 245 245 Poland: +48 22 619 66 54 Bulgaria: +359 2 9154 409 +48 22 619 08 97 Portugal: 808 250 143 (in Portugal only)

Cyprus: 1401

Czech Republic: +420 224 919 293 +351 21 330 3284 Romania: +40 21318 3606 +420 224 915 402

Denmark: +45 82 12 12 12 Slovakia: +421 2 54 77 4 166 Slovenia: +386 41 650 500 France: +33 (0) 1 45 42 59 59

South Africa: +27 83 123 3911 (Bateleur Emergency Response Co.) Finland: +358 9 471 977

Spain: +34 91 562 04 20 Greece: 30 210 77 93 777 Sweden: +46 08-331231 Hungary: +36 80 20 11 99 112

Ireland (Republic): +353 1 809 2166 Switzerland: 145 Italy: +39 02 6610 1029 Turkey: 114 Lithuania: +370 523 62052

United Kingdom: 111 +370 687 53378

U.S.A. & Canada: +1 800 / 331-3148 (ProPharma) Luxembourg: +352 8002 5500

All other countries: +1 651 / 632-6793 (ProPharma - Collect) Netherlands: +31 30 274 88 88

For fire, leak, spill or other accident emergencies:

U.S.A.: +1 800 / 424 9300 (CHEMTREC)

All other countries: +1 703 / 527 3887 (CHEMTREC - Collect)



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# **SECTION 2: HAZARDS IDENTIFICATION**

2.1. Classification of the substance or

mixture

Acute oral toxicity: Category 4 (H302)

Specific target organ toxicity – repeated exposure: Category 1 (H372)

Hazards to the aquatic environment, chronic: Category 1 (H410)

Health hazards ...... The product is harmful by ingestion. It may have several harmful

effects on prolonged or repeated exposure.

Environmental hazards ...... The product is toxic to aquatic organisms.

### 2.2. Label elements

According to EU Reg. 1272/2008 as amended

Product identifier ...... Rumo®

Hazard pictogram (GHS07, GHS08, GHS09)







Signal word ...... Warning

Hazard statements

H302 ..... Harmful if swallowed.

Supplementary hazard statements

EUH401 ...... To avoid risks to human health and the environment, comply with the

instructions of use.

Precautionary statements

P260 ...... Do not breathe vapours/spray

P264 ...... Wash hands thoroughly after handling.

P309+P311 ...... If exposed or if you feel unwell: Call a POISON CENTER or

doctor/physician.

P391 ..... Collect spillage

P501 ...... Dispose of contents / container to a licensed hazardous-waste disposal

contractor or collection site except for empty clean containers which

can be disposed of as non-hazardous waste

PBT or vPvB.



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# **♣** SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. **Mixtures** See section 16 for full text of hazard statements.

Active ingredient

Indoxacarb ...... Content: 30% by weight

dihydro-2-[[(methoxycarbonyl)[4-(trifluoromethoxy)phenyl]amino]-

carbonyl]-, methyl ester

indeno[1,2-e][1,3,4]oxadiazin-2-ylcarbonyl]-4'-(trifluoromethoxy)-

carbanilate

ISO name/EU name ...... Indoxacarb EC no. (EINECS no.) ...... None

Molecular weight ...... 527.8

Classification of the ingredient ..... Acute oral toxicity: Category 3 (H301)

Acute inhalation toxicity: Category 4 (H332) Sensitisation – skin: Category 1B (H317)

Specific target organ toxicity – repeated exposure: Category 1 (H372)

Hazards to the aquatic environment, acute: Category 1 (H400) chronic: Category 1 (H410)

# **SECTION 4: FIRST AID MEASURES**

4.1.	<b>Description</b>	of first aid	measures
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Inhalation ...... If experiencing any discomfort, immediately remove from exposure.

Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical

attention immediately or call for an ambulance.

Skin contact ...... Immediately remove contaminated clothing and footwear. Flush skin

with water. Wash with water and soap. See physician if any symptom

develops.

Eye contact ...... Immediately rinse eyes with much water or eyewash solution,

occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. Get

medical attention if irritation persists.

person rinse mouth and then drink 1 or 2 glasses of water or milk.

Induce vomiting only if:

1. a significant amount (more than a mouthful) has been ingested

2. patient is fully conscious

3. medical aid is not readily available

4. time since ingestion is less than one hour.



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Let the patient induce vomiting by touching the back of the throat with a finger. If vomiting does occur, let him/her rinse mouth and drink fluids again.

4.2. Most important symptoms and effects, both acute and delayed

Acute effects on nervous system: drowsiness, tremors, paralysis Chronic, additionally: cyanosis

4.3. Indication of any immediate medical attention and special treatment needed

Immediate medical attention is required in case of ingestion.

It may be helpful to show this safety data sheet to physician.

Notes to physician .....

Indoxacarb acts by blocking sodium channels in the nervous system. Secondarily, it has oxidant effects on red blood cells causing methemoglobinemia.

Gastric lavage and/or administration of activated charcoal can be considered. After decontamination, treatment is primarily supportive and symptomatic. Consider possibility of methemoglobinemia and treat with methylene blue if required.

# **SECTION 5: FIRE-FIGHTING MEASURES**

5.2. Special hazards arising from the substance or mixture

The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as nitrogen oxides, hydrogen fluoride, hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide and various fluorinated and chlorinated organic compounds.

5.3. Advice for firefighters ......

Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

# **♣** SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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 10 tonnes of the product or more):

- 1. use personal protection equipment; see section 8
- 2. call emergency telephone no.; see 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



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may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and boots.

Stop the source of the spill immediately if safe to do so. Avoid and reduce formation of vapour or dust as much as possible.

## 6.2. **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.

# 6.3. Methods and materials for containment and cleaning up

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. See GHS (Annex 4, Section 6).

If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should immediately be swept up or preferably vacuumed up using equipment with high efficiency final filter. Collect in suitable containers. Clean area with strong industrial detergent and much water. Absorb wash liquid onto suitable inert absorbent such as universal binder, Fuller's earth, bentonite or other absorbent clay and transfer contaminated absorbent 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.

### 6.4. Reference to other sections .......

See subsection 8.2. for personal protection. See section 13 for disposal.

# **\*** SECTION 7: HANDLING AND STORAGE

# 7.1. Precautions for safe handling ....

In an industrial environment, it is recommended to avoid all personal contact with the product, if possible by using closed systems with remote system control. The material should be handled by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise. For personal protection in this situation, see section 8.

For its use as a pesticide, first look for precautions and personal protection measures on the officially approved label on the packaging or for other official guidance or policy in force. If these are lacking, see section 8.



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Remove contaminated clothing immediately. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and footwear. Take a shower, using water and soap. Wear only clean clothes when leaving job. Wash protective clothing and protective equipment with water and soap after each use.

Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

# 7.2. Conditions for safe storage, including any incompatibilities

The product is stable under normal conditions of warehouse storage.

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.

7.3. **Specific end use(s)** .....

The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

# **♣** SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

# 8.1. Control parameters

product. However, personal exposure limits defined by local

regulations may exist and must be observed.

# Indoxacarb

DNEL, systemic ...... 0.004 mg/kg bw/day

PNEC, aquatic environment ...... 0.84 μg/l

# 8.2. Exposure controls .....

When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping systems non-hazardous before opening.

The precautions mentioned below are primarily meant for handling of the undiluted product and for preparing the spray solution, but can be recommended for spraying as well.

In cases of incidental high exposure, maximal personal protection may be necessary, such as respirator, face mask, chemical resistant coveralls.



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Respiratory protection

In the event of an accidental discharge of the material which produces a heavy vapour or dust, workers must put on officially approved respiratory protection equipment with a universal filter type including particle filter.



Protective gloves .....

Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown. Generally, however, the use of protective gloves will give only partial protection against dermal exposure. Small tears in the gloves and cross-contamination can easily occur. It is recommended to shift the gloves frequently and to limit the work to be done manually.



Eye protection ......

Wear safety glasses. It is recommended to have an eye wash fountain immediately available in the workplace when there is a potential for eye contact.



Other skin 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 excessive or prolonged exposure, coveralls of barrier laminate may be required.

# **\*** SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

# 9.1. **Information on physical and** chemical properties

Appearance ....... Dark brown solid (granules)

pH ...... 10 g/l dispersion in water: 7.5 at 20°C

explosive limits ...... Not determined

Vapour density ...... Not determined

Relative density ...... 0.8

Solubilities ...... Solubility of **indoxacarb** in:

ethyl acetate 160 g/l heptane 1.72 g/l water 15 mg/l at 25°C

Partition coefficient n-octanol/water Indoxacarb :  $\log K_{ow} = 4.60$ 



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9.2. Other information

Miscibility ...... The product is dispersible in water.

# **♣** SECTION 10: STABILITY AND REACTIVITY

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

temperatures.

10.3. **Possibility of hazardous reactions** None known.

10.4. **Conditions to avoid** ...... Heating of the product will produce harmful and irritant vapours.

10.5. **Incompatible materials** ...... None known.

10.6. **Hazardous decomposition products** See subsection 5.2.

# **♣** SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects	* = Based on available data, the classification criteria are not met.
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**Product** 

inhalation or skin contact. The acute toxicity is measured as:

Route(s) of entry - ingestion LD<sub>50</sub>, oral, rat (male): 1876 mg/kg (method OECD 401)

LD<sub>50</sub>, oral, rat (female): 687 mg/kg

- skin  $LD_{50}$ , dermal, rat: > 5000 mg/kg (method OECD 402)

- inhalation  $LC_{50}$ , inhalation, rat: > 5.6 mg/l/4 h (method OECD 403)

Serious eye damage/irritation ...... Not irritating to eyes (method OECD 405). \*

Respiratory or skin sensitisation ... Not a skin sensitizer (method OECD 406). \*

Carcinogenicity ...... The product contains no ingredients known to be carcinogenic. \*

reproduction. \*



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STOT – single exposure	To our knowledge, no specific effects have been observed after single exposure. *
STOT – repeated exposure	The following has been measured on the active ingredient indoxacarb: Target organ: blood and nervous system NOAEL: 0.6 mg/kg bw/day (10 ppm) in a 90-day oral rat study. At this exposure, oxidant-induced effects on red blood cells were observed.
Aspiration hazards	The product contains no ingredients known to present an aspiration pneumonia hazard. *
Symptoms and effects, acute and delayed	Acute effects on nervous system: drowsiness, tremors, paralysis Chronic, additionally: cyanosis
Indoxacarb Toxicokinetics, metabolism and distribution	After oral administration, indoxacarb is partially absorbed with highest levels found in fat and blood. Metabolism is extensive. Excretion is slow. Accumulation in fat and red blood cells is possible.
Acute toxicity	The substance is toxic by ingestion and may be harmful by inhalation. The acute toxicity is measured as:
Route(s) of entry - ingestion	LD <sub>50</sub> , oral, rat: 268 mg/kg
- skin	$LD_{50}$ , dermal, rat: $> 5000$ mg/kg
- inhalation	LC <sub>50</sub> , inhalation, rat: > 5.5 mg/l
Skin corrosion/irritation	Not irritating to skin. *
Serious eye damage/irritation	Not irritating to eyes. *
Respiratory or skin sensitisation	Skin sensitizer.

# **♣** SECTION 12: ECOLOGICAL INFORMATION

12.1. <b>Toxicity</b>	The product is very toxic to insects and toxic aquatic organisms. It is
	not considered as harmful to birds and soil macro- and micro-
	organisms.

The ecotoxicity of the product is measured as:

- Fish	Rainbow trout (Oncorhynchus mykiss)	96-h LC <sub>50</sub> : 1.8 mg/l
- Invertebrates	Daphnids (Daphnia magna)	48-h LC <sub>50</sub> : 1.7 mg/l
- Algae	Green algae (Pseudokirchneriella subcapitata)	72-h $E_bC_{50}$ : > 1.2 mg/l
- Birds	Bobwhite quail (Colinus virginianus)	LD <sub>50</sub> : 580 mg/kg
- Insects	Bees (Apis mellifera)	48-h LD <sub>50</sub> , contact: 0.0013 μg/bee 48-h LD <sub>50</sub> , oral: 0.0016 μg/bee



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12.2. Persistence and degradability	<b>Indoxacarb</b> is not readily biodegradable. Primary degradation half-lives vary with circumstances, but are usually several weeks in aerobic soil.	
12.3. Bioaccumulative potential	See section 9 for n-octanol/water partition coefficient.	
	<b>Indoxacarb</b> has a low potential for bioaccumulation. The bioaccumulation factor (BCF) is measured to 950.	
12.4. Mobility in soil	Indoxacarb is not mobile in soil.	
12.5. Results of PBT and vPvB assessment	None of the ingredients meets the criteria for being PBT or vPvB.	
12.6. Other adverse effects	Other relevant hazardous effects in the environment are not known.	
▲ SECTION 13: DISPOSAL CONSIDERATIONS		

#### SECTION 13: DISPOSAL CONSIDERATIONS

13.1.	Waste treatment methods	Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste.
	Disposal of product	Disposal of waste and packagings must always be in accordance with

Disposal of waste and packagings must always be in accordance with all applicable local regulations.

According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not feasible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

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.



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# **SECTION 14: TRANSPORT INFORMATION**

## ADR/RID/IMDG/IATA/ICAO classification

14.2. **UN proper shipping name** ....... Environmentally hazardous substance, solid, n.o.s. (indoxacarb)

14.3. Transport hazard class(es) ....... 9

14.4. Packing group ...... III

14.5. Environmental hazards ...... Marine pollutant

14.6. **Special precautions for user** ...... Avoid any unnecessary contact with the product. Misuse can result in

damage to health. Do not discharge to the environment.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the

**IBC code** ...... The product is not transported in bulk by ship.

# **♣** SECTION 15: REGULATORY INFORMATION

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

Seveso category (Dir. 2012/18/EU): dangerous for the environment

All ingredients are covered by EU chemical legislation.

15.2. Chemical safety assessment .......

A chemical safety assessment is not required to be included for this product.

# **SECTION 16: OTHER INFORMATION**

Relevant changes in the safety data sheet

Numerous changes have been made to apart the format of the safety data sheet, but these do not include new information on hazardous

properties.

List of abbreviations ...... CAS Chemical Abstracts Service

Dir. Directive

DNEL Derived No Effect Level EC European Community EC<sub>50</sub> 50% Effect Concentration

E<sub>b</sub>C<sub>50</sub> 50% Effect Concentration based on biomass

EINECS European INventory of Existing Commercial Chemical

Substances

GHS Globally Harmonized classification and labelling System

of chemicals, Fifth revised edition 2013

IBC International Bulk Chemical code

ISO International Organisation for Standardization IUPAC International Union of Pure and Applied Chemistry

LC<sub>50</sub> 50% Lethal Concentration



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	$LD_{50}$	50% Lethal Dose		
	MARPOL	Set of rules from the International Maritime Organisation		
		(IMO) for prevention of sea pollution		
	NOAEL	No Observed Adverse Effect Level		
	n.o.s.	Not otherwise specified		
	OECD	Organisation for Economic Cooperation and Development		
	PBT	Persistent, Bioaccumulative, Toxic		
	PNEC	Predicted No Effect Concentration		
	Reg.	Regulation		
	STOT	Specific Target Organ Toxicity		
	vPvB	very Persistent, very Bioaccumulative		
	WHO	World Health Organisation		
References		sured on the product are unpublished company data. Data on as are available from published literature and can be found aces.		
Method for classification	Acute oral toxicity: test data			
		Specific target organ toxicity – repeated exposure: calculation rules		
	Hazards to	o the aquatic environment, chronic: calculation rules		
Used hazard statements	H301	Toxic if swallowed.		
	H302	Harmful if swallowed.		
	H317	May cause an allergic skin reaction.		
	H332	Harmful if inhaled.		
	H372	Causes damage to the blood and nervous system through		
		prolonged or repeated exposure.		
	H400	Very toxic to aquatic life.		
	H410	Very toxic to aquatic life with long lasting effects.		
		7 1		
	EUH401	To avoid risks to human health and the environment, comply with the instructions of use.		
Advice on training	training			

The information provided in this safety data sheet is believed to be accurate and reliable, but uses of the product vary and situations unforeseen by FMC Corporation may exist. The user has to check the validity of the information under local circumstances.

Prepared by: FMC Corporation / Cheminova A/S / GHB