

CLAYTON PLANT PROTECTION

CLAYTON PURSER Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 1/11/2017

This version replaces all previous versions

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier CLAYTON PURSER

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

1.3. Details of the supplier of the safety data sheet : Marketing Company in UK

Clayton Plant Protection (UK) Ltd., Bracetown Business Park, Clonee, Dublin15. Ireland.

Tel: (00 353) 1 8210127 www.claytonpp.com Email: info@claytonpp.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Acute toxicity, Category 4 H302: Harmful if swallowed.

Specific target organ toxicity - single exposure, Category 2 H371: May cause damage to organs. (Nervous system)

Chronic aquatic toxicity, Category 1 H410: Very toxic to aquatic life with long lasting effects. 1

2.2. Label elements Hazard

pictograms



Warning

H302 Harmful if swallowed.

H371 May cause damage to organs. (Nervous system) H410

Very toxic to aquatic life with long lasting effects.

Special labelling of certain substances and mixtures : Contains: Indoxacarb / EUH208:

May produce an allergic reaction.

EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

P260 Do not breathe dust.

P260 Do not breathe spray.

P264 Wash hands and face thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P308 + P311 IF exposed or concerned: Call a POISON CENTRE/doctor.

P391 Collect spillage.

P501 Dispose of contents to an approved incineration plant in accordance with local, regional and national legislations.

P501 Dispose of container to a waste disposal plant in accordance with local, regional and national legislations.

Special labelling of certain substances and mixtures : Restricted to professional users.

SP 1 Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards : This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

SECTION 3: Composition information on ingredients /

3.1. Substances Not applicable 3.2.

Mixtures :

Registration number	Classification according to Regulation (EU) 1272/2008 (CLP)	Concentration (% w/w)
Indoxacarb (CAS-No.173584-44-6) (M-Factor : 1[Acute])		
	Acute Tox. 3; H301 Acute Tox. 4; H332 Skin Sens. 1B; H317 STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	30 %
Lignin, alkali, reaction products with sodium bisulfite and formaldehyde (CAS-No.68512-35-6)		
	Eye Irrit. 2; H319	>= 45 - < 50 %

The above products are compliant to REACH registration obligations; Registration number(s) may not be provided because substance(s) are exempted, not yet registered under REACH or are registered under another regulatory process (biocide uses, plant protection products), etc.

CLAYTON PLANT PROTECTION

CLAYTON PURSER Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 1/11/2017

This version replaces all previous versions

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : Never give anything by mouth to an unconscious person.

Inhalation : Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician.

Skin contact : Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.

Eye contact : If easy to do, remove contact lens, if worn. Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.

Ingestion : Obtain medical attention. DO NOT induce vomiting unless directed to do so by a physician or poison control centre. If victim is conscious: Rinse mouth with water.

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

Symptoms : No cases of human intoxication are known and the symptoms of experimental intoxication are not known.

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

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray, Foam, Dry chemical, Carbon dioxide (CO₂)

Extinguishing media which shall not be used for safety reasons : High volume water jet, (contamination risk)

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : Hazardous decomposition products formed under fire conditions. Carbon dioxide (CO₂) Nitrogen oxides (NO_x)

5.3. Advice for firefighters : Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

: (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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Control access to area. Keep people away from and upwind of spill/leak. Avoid dust formation.

Avoid breathing dust. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Clean-up methods - small spillage - Soak up with inert absorbent material. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean-up methods - large spillage Avoid dust formation. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13). Large spills should be collected mechanically (remove by pumping) for disposal. Collect leaking liquid in sealable (metal/plastic) containers. Collect and contain contaminated absorbent and dike material for disposal.

Other information : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

6.4. Reference to other sections For personal protection see section 8. For disposal instructions see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Use only according to our recommendations. Use only clean equipment. Avoid contact with skin, eyes and clothing. Do not breathe dust or spray mist. Wear personal protective equipment. For personal protection see section 8. Prepare the working solution as given on the label(s) and/or the user instructions. Use prepared working solution as soon as possible - Do not store. Provide appropriate exhaust ventilation at places where dust is formed. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Avoid exceeding the given occupational exposure limits (see section 8). Advice on protection against fire and explosion : Keep away from heat and sources of ignition. Avoid dust formation in confined areas. During processing, dust may form explosive mixture in air.

7.2. Conditions for safe storage, including any incompatibilities

CLAYTON PLANT PROTECTION

CLAYTON PURSER Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 1/11/2017

This version replaces all previous versions

Requirements for storage areas and containers : Store in original container. Keep in properly labelled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

Advice on common storage : No special restrictions on storage with other products.

Other data : Stable under recommended storage conditions.

7.3. Specific end use(s) : Plant protection products subject to Regulation (EC) No 1107/2009.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters : If sub-section is empty then no values are applicable.

8.2. Exposure controls

Engineering measures : Ensure adequate ventilation, especially in confined areas. Provide for appropriate exhaust ventilation and dust collection at machinery.

Eye protection : Safety glasses with side-shields conforming to EN166

Hand protection : Material: Nitrile rubber Glove thickness: 0,3 mm Glove length: Standard glove type. Protection index: Class 6 Wearing time: > 480 min The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Gloves must be inspected prior to use. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Gauntlets shorter than 35 cm long shall be worn under the combination sleeve. Before removing gloves clean them with soap and water.

Skin and body protection : Manufacturing and processing work: Full protective clothing Type 5 (EN 139822) Mixer and loaders must wear: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034) Rubber apron Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Spray application - outdoor: Tractor / sprayer with hood: No personal body protection normally required.

Tractor / sprayer without hood: Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Backpack / knapsack sprayer: Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Spray application - indoor: Motorized greenhouse sprayer: Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Backpack / knapsack sprayer: Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Mechanical automatized spray application in closed tunnel: No personal body protection normally required during the application. However, gloves and a long sleeved shirt shall be worn when handling the treated plants after the application.

When exceptional circumstances would require an access to the treated area before the end of re-entry periods, wear full protective clothing Type 6 (EN 13034), nitrile rubber gloves class 2 (EN 374) and nitrile rubber boots (EN 13832-3 / EN ISO 20345).

To optimize the ergonomics it may be recommended to use cotton underwear when wearing some fabrics. Take advice from supplier. Garment materials that are resistant to both water vapour and air will maximise wearing comfort.

Materials should be robust to maintain the integrity and barrier in use. The permeation resistance of the fabric must be verified independently of the « type » protection recommended, to ensure an appropriate performance level of the material adequate to the corresponding agent and type of exposure.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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. Only protected handlers may be in the area during application.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. Wash hands and face before breaks and immediately after handling the product. When using do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. Remove clothing/PPE immediately if material gets inside. For environmental protection remove and wash all contaminated protective equipment before re-use. Wash thoroughly and put on clean clothing. Dispose of rinse water in accordance with local and national regulations.

Respiratory protection : Manufacturing and processing work: Half mask with a particle filter FFP1 (EN149)

Mixer and loaders must wear: Half mask with a particle filter FFP1 (EN149)

CLAYTON PLANT PROTECTION

CLAYTON PURSER Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 1/11/2017

This version replaces all previous versions

Spray application - outdoor: Tractor / sprayer with hood: No personal respiratory protective equipment normally required. Tractor / sprayer without hood: Half mask with a particle filter FFP1 (EN149) Backpack / knapsack sprayer: Half mask with a particle filter P1 (EN 143).

Spray application - indoor: Motorized greenhouse sprayer: Half mask with a particle filter P1 (EN 143).

Backpack / knapsack sprayer: Half mask with a particle filter P1 (EN 143).

Mechanical automatized spray application in closed tunnel: No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form : dry, free flowing granules Colour : dark brown Odour : mild, woody Odour Threshold : not determined pH : 7,5 at 10 g/l (20 °C) Melting point/range : Not available for this mixture. Flash point : Not applicable Flammability (solid, gas) : Does not sustain combustion. Ignition temperature : Thermal decomposition : Not available for this mixture. Auto-ignition temperature : not auto-flammable Oxidizing properties : The product is not oxidizing. Method: Directive 67/548/EEC, Annex V, A.17.	Explosive properties : Not explosive Lower explosion limit/ lower flammability limit : Not available for this mixture. Upper explosion limit/ upper flammability limit : Not available for this mixture. Vapour pressure : Not available for this mixture. Relative density : 0,8 Bulk density : 800 kg/m ³ Water solubility : not determined Partition coefficient: n-octanol/water : Not applicable Viscosity, kinematic : not determined Relative vapour density : Not available for this mixture. Evaporation rate : Not available for this mixture.
--	--

9.2. Other information

Phys.-chem./other information : No other data to be specially mentioned.

SECTION 10: Stability and reactivity

10.1. Reactivity : No hazards to be specially mentioned.

10.2. Chemical stability : The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use. Polymerization will not occur. No decomposition if stored and applied as directed.

10.4. Conditions to avoid : To avoid thermal decomposition, do not overheat. Under severe dusting conditions, this material may form explosive mixtures in air.

10.5. Incompatible materials : No materials to be especially mentioned.

10.6. Hazardous decomposition products : Hydrogen fluoride Hydrogen chloride gas

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity LD50 / Rat male : 1 876 mg/kg Method: OECD Test Guideline 401 Information source:

Internal study report (Data on the product itself) LD50 / Rat female : 687 mg/kg Method: OECD Test Guideline 401

Information source: Internal study report (Data on the product itself)

Acute inhalation toxicity LC50 / 4 h Rat : > 5,6 mg/l Method: OECD Test Guideline 403 Information source: Internal study report (Data on the product itself)

Acute dermal toxicity LD50 / Rat : > 5 000 mg/kg Method: OECD Test Guideline 402 Information source: Internal study report (Data on the product itself)

Skin irritation Rabbit Result: No skin irritation Method: OECD Test Guideline 404 Information source: Internal study report (Data on the product itself)

Eye irritation Rabbit Result: No eye irritation Method: OECD Test Guideline 405 Information source: Internal study report (Data on the product itself)

Sensitisation Guinea pig Maximisation Test Result: Animal test did not cause sensitization by skin contact. Method: OECD Test Guideline 406 Information source: Internal study report (Data on the product itself)

Repeated dose toxicity Oral - feed Rat Exposure time: 90 d Method: OECD Test Guideline 408 No significant toxicological effects in 90 day studies were found below the recommended guidance values for classification.,

Information source: Internal study report

Mutagenicity assessment • Indoxacarb Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Animal testing did not show any mutagenic effects.

Carcinogenicity assessment • Indoxacarb Animal testing did not show any carcinogenic effects.

Toxicity to reproduction assessment • Indoxacarb Animal testing did not show any effects on fertility. No toxicity to reproduction

CLAYTON PLANT PROTECTION

CLAYTON PURSER Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 1/11/2017

This version replaces all previous versions

Assessment teratogenicity • Indoxacarb Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

STOT - single exposure Central nervous system The substance or mixture is classified as specific target organ toxicant, single exposure, category 2.

STOT - repeated exposure The substance or mixture is not classified as specific target organ toxicant, repeated exposure. Aspiration hazard The mixture does not have properties associated with aspiration hazard potential.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish LC50 / 96 h / *Oncorhynchus mykiss* (rainbow trout): 1,8 mg/l Method: OECD Test Guideline 203

Information source: Internal study report (Data on the product itself)

Toxicity to aquatic plants EbC50 / 72 h / *Pseudokirchneriella subcapitata* (green algae): > 1,2 mg/l Method: OECD

Test Guideline 201 Information source: Internal study report (Data on the product itself)

Toxicity to aquatic invertebrates EC50 / 48 h / *Daphnia magna* (Water flea): 1,7 mg/l Method: OECD Test Guideline

202 Information source: Internal study report (Data on the product itself)

Toxicity to other organisms LD50 / *Colinus virginianus* (Bobwhite quail): 508 mg/kg Method: US EPA Test Guideline

OPP 71-1 Information source: Internal study report (Data on the product itself)

LD50 / 48 h / *Apis mellifera* (bees): 0,00160 mg/kg 11/15 Method: OEPP/EPPO Test Guideline 170 Oral Information given is based on data obtained from similar product.

LD50 / 48 h / *Apis mellifera* (bees): 0,0013 mg/kg Method: OEPP/EPPO Test Guideline 170 Contact Information given is based on data obtained from similar product.

Chronic toxicity to fish • Indoxacarb Early Life-Stage / NOEC / 90 d / *Oncorhynchus mykiss* (rainbow trout): 0,15 mg/l

Information source: Internal study report

Chronic toxicity to aquatic Invertebrates • Indoxacarb NOEC / 21 d / *Daphnia magna* (Water flea): 0,9 mg/l Information source: Internal study report

12.2. Persistence and degradability

Biodegradability : Not readily biodegradable. Estimation based on data obtained on active ingredient.

12.3. Bioaccumulative potential

Bioaccumulation : Does not bioaccumulate. Information refers to the main component.

12.4. Mobility in soil : The product is not expected to be mobile in soils.

12.5. Results of PBT and vPvB assessment : This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). / This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

12.6. Other adverse effects

Additional ecological information No other ecological effects to be specially mentioned See product label for additional application instructions relating to environmental precautions.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Do not re-use empty containers.

European Waste Catalogue number : 020108: agrochemical waste containing dangerous substances

SECTION 14: Transport information

ADR

14.1. UN number: 3077

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: Environmentally hazardous

14.6. Special precautions for user: Tunnel restriction code: (E) IATA_C

14.1. UN number: 3077

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 : Environmentally hazardous

14.6. Special precautions for user: Recommendations and transport guidance: ICAO / IATA cargo aircraft only IMDG

14.1. UN number: 3077

14.2. UN proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Indoxacarb) 1

14.3. Transport hazard class(es): 9

14.4. Packing group: III

CLAYTON PLANT PROTECTION

CLAYTON PURSER Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 1/11/2017

This version replaces all previous versions

14.5. Environmental hazards : Marine pollutant

14.6. Special precautions for user: No special precautions required.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code : Not applicable

SECTION 15: Regulatory information

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

Other regulations: The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008. Take note of Dir 94/33/EC on the protection of young people at work. Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers. Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. Take note of Directive 96/82/EC on the control of major-accident hazards involving dangerous substances. Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

15.2. Chemical safety assessment: A Chemical Safety Assessment is not required for this/these products. The mixture is registered as a plant protection product under Regulation (EC) No. 1107/2009. Refer to the label for exposure assessment information.

SECTION 16: Other information

Full text of H-Statements referred to under section 3.

H301 Toxic if swallowed.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Other information : professional use

Abbreviations and acronyms

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road ATE

Acute toxicity estimate

CAS-No. Chemical Abstracts Service number

CLP Classification, Labelling and Packaging

EbC50 Concentration at which 50% reduction of biomass is observed

EC50 Median effective concentration

EN European Norm

EPA Environmental Protection Agency

ErC50 Concentration at which a 50% inhibition of growth rate is observed

EyC50 Concentration at which 50 % inhibition of yield is observed

IATA_C International Air Transport Association (Cargo)

IBC International Bulk Chemical Code

ICAO International Civil Aviation Organization

ISO International Standard Organization

IMDG International Maritime Dangerous Goods 14/15

LC50 Median Lethal Concentration

LD50 Median Lethal Dose

LOEC Lowest Observed Effect Concentration

LOEL Lowest observed effect level

MARPOL International Convention for the Prevention of Marine Pollution from Ships n.o.s.

Not Otherwise Specified

NOAEC No Observed Adverse Effect Concentration

NOAEL No observed adverse effect level

NOEC No Observed Effect Concentration

NOEL No Observed Effect Level

OECD Organisation for Economic Co-operation and Development

OPPTS Office of Prevention, Pesticides and Toxic Substances

PBT Persistent, Bioaccumulative and Toxic

STEL Short term exposure limit TWA Time

Weighted Average (TWA):

vPvB very Persistent and very Bioaccumulative

Further information : Take notice of the directions of use on the label.

CLAYTON PLANT PROTECTION**CLAYTON PURSER** Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 1/11/2017

This version replaces all previous versions

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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.