

CLAYTON PLANT PROTECTION

CLAYTON GRAZER Safety Data Sheet according to Regulation (EC) No. 2015/830 Version 1/dsc 18/12/2023.
This version replaces all previous versions.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY OR UNDERTAKING

1.2 Product identifier Product name : CLAYTON GRAZER

1.2 Relevant identified uses of the substance or mixture and uses advised against Use : Herbicide

1.3 Details of the supplier of the safety data sheet

Company Clayton Plant Protection (UK) Ltd., Bracetown Business Park, Clonee, Dublin15. Ireland.
Tel: (00 353) 1 8210127 www.claytonppp.com Email: info@claytonpp.com

1.4 Emergency phone number. 111 NHS.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Flammable liquids - Category 3 - H226

Skin irritation - Category 2 - H315

Eye irritation - Category 2 - H319

Skin sensitization - Category 1B - H317

Specific target organ toxicity - single exposure - Category 3 - Inhalation - H335

Specific target organ toxicity - single exposure - Category 3 - Inhalation - H336 Target Organ Systemic Toxicant -

Repeated exposure - Category 2 - H373

Aspiration hazard - Category 1 - H304

Short-term (acute) aquatic hazard - Category 1 - H400

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

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms :



Signal word : Warning

Hazard statements :

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P331 Do NOT induce vomiting.

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 nonhazardous waste

Supplemental information

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

Contains Triclopyr-2-butoxyethyl ester; Hydrocarbons, C9, aromatics; Hydrocarbons, C10-C13, aromatics

2.3 Other hazards. No data available

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures This product is a mixture.

CASRN / EC-No. / Index-No	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN 64700-56-7 EC-No. 265-024-8 Index-No. –	-	32.5%	Triclopyr-2-butoxyethyl ester	Acute Tox. - 4 - H302 Skin Sens. - 1 - H317 STOT RE - 2 - H373 Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410
CASRN 1702-17-6 EC-No. 216-935-4 Index-No. 607-231-00-1	-	5.8%	Clopyralid (ISO)	Eye Dam. - 1 - H318 Aquatic Chronic - 1 - H410
CASRN Not available EC-No. 918-668-5 Index-No. –	01-2119455851-35	> 40.0 - < 50.0 %	Hydrocarbons, C9, aromatics	Flam. Liq. - 3 - H226 STOT SE - 3 - H335 STOT SE - 3 - H336 Asp. Tox. - 1 - H304 Aquatic Chronic - 2 - H411
CASRN Not available EC-No. 909-125-3 Index-No. –	01-2119974115-37	< 10.0 %	Reaction mass of N,N-dimethyldecane-1-amide and N,N-dimethyloctanamide	Skin Irrit. - 2 - H315 Eye Dam. - 1 - H318 STOT SE - 3 - H335
CASRN not available EC-No. 922-153-0 Index-No. –	01-2119451097-39	< 5.0 %	Hydrocarbons, C10-C13, aromatics, <1% naphthalene	Asp. Tox. - 1 - H304 Aquatic Chronic - 2 - H411
CASRN 68953-96-8 EC-No. 273-234-6 Index-No. –	01-2119964467-24	< 5.0 %	Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	Acute Tox. - 4 - H312 Skin Irrit. - 2 - H315 Eye Dam. - 1 - H318 Aquatic Chronic - 2 - H411

If present in this product, any not classified components disclosed above for which no country specific OEL value(s) is(are) indicated under Section 8, are being disclosed as voluntarily disclosed components. 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: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment. Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc).

Call a poison control centre or doctor for treatment advice.

If breathing is difficult, oxygen should be administered by qualified personnel.

Skin contact: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly. Suitable emergency safety shower facility should be available in work area.

Eye contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control centre or doctor for treatment advice.

Ingestion: Immediately call a poison control centre or doctor. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

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

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. If burn is present, treat as any thermal burn, after decontamination. The decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control centre or doctor or going for treatment. Skin contact may aggravate preexisting dermatitis.

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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function but will be less effective.

Unsuitable extinguishing media: No data available

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Vapours are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.

5.3 Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water.

Do not use direct water stream. May spread fire. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible.

Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep personnel out of low areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

6.3 Methods and materials for containment and cleaning up:

Contain spilled material if possible.

Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labelled containers.

Large spills: Contact the company for clean-up assistance. Pump with explosion-proof equipment. If available, use foam to smother or suppress. See Section 13, Disposal Considerations, for additional information.

6.4 Reference to other sections: References to other sections, if applicable, have been provided in the previous sub-sections

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

Keep out of reach of children. Keep away from heat, sparks and flame. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. No smoking, open flames or sources of ignition in handling and storage area. Electrically ground and bond all equipment. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. Containers, even those that have been emptied, can contain vapours. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Vapours are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.

See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

7.2 Conditions for safe storage, including any incompatibilities: Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies. Minimize sources of ignition, such as static build-up, heat, spark or flame. Avoid temperatures above 40°C (104°F)

7.3 Specific end use(s): Refer to product label

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable. RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

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8.2 Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

Skin protection Hand protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Styrene/butadiene rubber. Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.

When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

Environmental exposure controls

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Colour	Yellow
Odor	Aromatic
Odor Threshold	No test data available
pH	2.04 pH Electrode (neat)
Melting point/range	Not applicable
Freezing point	No data available
Boiling point (760 mmHg)	No test data available
Flash point	closed cup 55.1 °C Pensky-Martens Closed Cup ASTM D 93
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not applicability to liquids
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	No test data available
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	1.032 at 20 °C / 4 °C Digital Density Meter (Oscillating Coil)
Water solubility	emulsifiable
Partition coefficient: noctanol/water	No data available
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Kinematic Viscosity	No data available
Explosive properties	No
Oxidizing properties	No data available

9.2 Other information Molecular weight No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No dangerous reaction known under conditions of normal use.

10.2 Chemical stability: Unstable at elevated temperatures.

10.3 Possibility of hazardous reactions: Polymerization will not occur.

10.4 Conditions to avoid: Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. Avoid direct sunlight.

10.5 Incompatible materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

10.6 Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

11.1 Information on toxicological effects

Acute toxicity

Acute toxicity Acute oral toxicity Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product: LD50, Rat, female, 3,129 mg/kg

Acute dermal toxicity Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: LD50, Rat, male and female, > 5,000 mg/kg

Acute inhalation toxicity Vapor concentrations are attainable which could be hazardous on single exposure. May cause respiratory irritation and central nervous system depression. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.

As product: The LC50 has not been determined.

Skin corrosion/irritation. Brief contact may cause moderate skin irritation with local redness. May cause drying and flaking of the skin.

Serious eye damage/eye irritation May cause moderate eye irritation which may be slow to heal. May cause slight corneal injury.

Sensitization. Has demonstrated the potential for contact allergy in mice. For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure) May cause respiratory irritation. Route of Exposure: Inhalation
Target Organs: Respiratory Tract

May cause drowsiness or dizziness. Route of Exposure: Inhalation

Specific Target Organ Systemic Toxicity (Repeated Exposure)

For the active ingredient(s): Triclopyr butoxyethyl ester. In animals, effects have been reported on the following organs: Kidney. Liver.

Contains component(s) which have been reported to cause effects on the following organs in animals: Blood. Kidney. Liver. Eye. Respiratory tract.

Carcinogenicity

For the minor component(s): Cumene. Has caused cancer in laboratory animals. However, the relevance of this to humans is unknown. For the active ingredient(s): Did not cause cancer in laboratory animals.

Teratogenicity For the active ingredient(s): Triclopyr butoxyethyl ester. Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals. Clopyralid caused birth defects in test animals, but only at greatly exaggerated doses that were severely toxic to the mothers. No birth defects were observed in animals given clopyralid at doses several times greater than those expected during normal exposure. For the solvent(s): Has caused birth defects in laboratory animals only at doses producing severe toxicity in the mother. Has been toxic to the foetus in laboratory animals at doses toxic to the mother.

Reproductive toxicity. For similar active ingredient(s). Triclopyr. For the solvent(s): In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. For the active ingredient(s): Clopyralid. In animal studies, did not interfere with reproduction.

Mutagenicity. For the active ingredient(s): In vitro genetic toxicity studies were negative. Genetic toxicity studies in animals were negative for component(s) tested.

Aspiration Hazard May be fatal if swallowed and enters airways.

COMPONENTS INFLUENCING TOXICOLOGY:

Triclopyr-2-butoxyethyl ester

Acute inhalation toxicity

Prolonged exposure is not expected to cause adverse effects. Based on the available data, narcotic effects were not observed. Based on the available data, respiratory irritation was not observed. LC50, Rat, 4 Hour, dust/mist, > 4.8 mg/l
The LC50 value is greater than the Maximum Attainable Concentration.

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Clopyralid (ISO)

Acute inhalation toxicity

No adverse effects are anticipated from single exposure to dust. Based on the available data, respiratory irritation was not observed. Based on the available data, narcotic effects were not observed.

As product: LC50, Rat, 4 Hour, dust/mist, > 1 mg/l No deaths occurred at this concentration. The LC50 value is greater than the Maximum Attainable Concentration.

Hydrocarbons, C9, aromatics

Acute inhalation toxicity Vapor concentrations are attainable which could be hazardous on single exposure. May cause respiratory irritation and central nervous system depression. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness

LC50, Rat, 4 Hour, vapour, > 10.2 mg/l

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide

Acute inhalation toxicity Prolonged excessive exposure to mist may cause adverse effects. Mist may cause irritation of upper respiratory tract (nose and throat). LC50, Rat, 4 Hour, dust/mist, > 3.551 mg/l

Hydrocarbons, C10-C13, aromatics, <1% naphthalene

Acute inhalation toxicity

Prolonged excessive exposure may cause adverse effects. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. Symptoms of excessive exposure may be anaesthetic or narcotic effects; dizziness and drowsiness may be observed.

As product: The LC50 has not been determined. For similar material(s): LD50, Rat, dust/mist, > 4.778 mg/l

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts

Acute inhalation toxicity

The LC50 has not been determined.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

12.1 Toxicity

Acute toxicity to fish Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species).

LC50, *Oncorhynchus mykiss* (rainbow trout), flow-through test, 96 Hour, 1.47 mg/l

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Water flea), static test, 48 Hour, 21.6 mg/l

Acute toxicity to algae/aquatic plants

ErC50, *Pseudokirchneriella subcapitata* (green algae), static test, 72 Hour, Growth rate inhibition, 16.6 mg/l ErC50,

Myriophyllum spicatum, 14 d, 0.190 mg/l

NOEC, *Myriophyllum spicatum*, 14 d, 0.0305 mg/l

Toxicity to Above Ground Organisms

Material is slightly toxic to birds on an acute basis (LD50 between 501 and 2000 mg/kg).

oral LD50, *Colinus virginianus* (Bobwhite quail), 14 d, 1156mg/kg bodyweight.

oral LD50, *Apis mellifera* (bees), 48 Hour, > 370µg/bee

contact LD50, *Apis mellifera* (bees), 48 Hour, > 413µg/bee

Toxicity to soil-dwelling organisms LC50, *Eisenia fetida* (earthworms), 14 d, 224 mg/kg

12.2 Persistence and degradability

Triclopyr-2-butoxyethyl ester

Biodegradability: Chemical degradation (hydrolysis) is expected in the environment. Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. 10-day Window: Fail

Biodegradation: 18 %

Exposure time: 28 d

Method: OECD Test Guideline 301B or Equivalent

Theoretical Oxygen Demand: 1.21 mg/mg

Biological oxygen demand (BOD) Incubation time : 0.004mg/mg

Stability in Water (1/2-life) Hydrolysis, half-life, 8.7 d, pH 7, Half-life Temperature 25 °C

Photodegradation Atmospheric half-life: 5.6 Hour Method: Estimated.

Clopyralid (ISO)

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. 10-day Window: Fail

Biodegradation: 5 - 10 % Exposure time: 28 d

Method: OECD Test Guideline 301B or Equivalent

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Theoretical Oxygen Demand: 0.71 mg/mg
Stability in Water (1/2-life) Hydrolysis, pH 4 - 9, Stable
Photodegradation Test Type: Half-life (direct photolysis) Atmospheric half-life: 261 d

Hydrocarbons, C9, aromatics

Biodegradability: For the major component(s): Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. For some component(s): Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Pass

Biodegradation: > 80 %

Exposure time: 28 d Method: OECD Test Guideline 301F or Equivalent

Chemical Oxygen Demand: 2.890 mg/g Hydrocarbons, C10-C13, aromatics,

Hydrocarbons, C10-C13, aromatics, <1% naphthalene

Biodegradability: For similar material(s): Biodegradation may occur under aerobic conditions (in the presence of oxygen). Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. 10-day Window: Fail

Biodegradation: 2.9 %

Exposure time: 28 d Method: OECD Test Guideline 301E or Equivalent

12.3 Bioaccumulative potential

Triclopyr-2-butoxyethyl ester

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 4.62

Bioconcentration factor (BCF): 110 Fish

Clopyralid (ISO)

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): -2.63

Bioconcentration factor (BCF): < 1 Fish Measured

Hydrocarbons, C9, aromatics

Bioaccumulation: For the major component(s): Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). For the minor component(s): Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow):

Hydrocarbons, C10-C13, aromatics, <1% naphthalene

Bioaccumulation: No data available for this product. For similar material(s):

Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 4.6 OECD Test Guideline 107 or Equivalent

12.4 Mobility in soil

Triclopyr-2-butoxyethyl ester Calculation of meaningful sorption data was not possible due to very rapid degradation in the soil. For the degradation product: Triclopyr. Potential for mobility in soil is very high (Koc between 0 and 50).

Clopyralid (ISO) Potential for mobility in soil is very high (Koc between 0 and 50). Partition coefficient (Koc): 4.9

Hydrocarbons, C9, aromatics No relevant data found.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide Potential for mobility in soil is low (Koc between 500 and 2000). Partition coefficient (Koc): 527.3

Hydrocarbons, C10-C13, aromatics, <1% naphthalene

No relevant data found. Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts No relevant data found.

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12.5 Results of PBT and vPvB assessment

Triclopyr-2-butoxyethyl ester. This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Clopyralid (ISO) This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Hydrocarbons, C9, aromatics This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Hydrocarbons, C10-C13, aromatics, <1% naphthalene

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Triclopyr-2-butoxyethyl ester. This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Clopyralid (ISO) This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Hydrocarbons, C9, aromatics This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Hydrocarbons, C10-C13, aromatics, <1% naphthalene

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws. The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

SECTION 14: TRANSPORT INFORMATION

Classification for ROAD and Rail transport (ADR/RID):

14.1 UN number UN 1993

14.2 UN proper shipping name FLAMMABLE LIQUID, N.O.S.(Hydrocarbons, C9, aromatics)

14.3 Transport hazard class(es) 3

14.4 Packing group III

14.5 Environmental hazards Triclopyr-2-butoxyethyl ester, Clopyralid

14.6 Special precautions for user Hazard Identification Number: 30

Classification for SEA transport (IMO-IMDG):

14.1 UN number UN 1993

14.2 UN proper shipping name FLAMMABLE LIQUID, N.O.S.(Hydrocarbons, C9, aromatics)

14.3 Transport hazard class(es) 3

14.4 Packing group III

14.5 Environmental hazards Triclopyr-2-butoxyethyl ester, Clopyralid

14.6 Special precautions for user EmS: F-E, S-E

14.7 Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

14.1 UN number UN 1993

14.2 UN proper shipping name Flammable liquid, n.o.s.(Hydrocarbons, C9, aromatics)

14.3 Transport hazard class(es) 3

14.4 Packing group III

CLAYTON PLANT PROTECTION

CLAYTON GRAZER Safety Data Sheet according to Regulation (EC) No. 2015/830 Version 1/dsc 18/12/2023.

This version replaces all previous versions.

14.5 Environmental hazards Not applicable

14.6 Special precautions for user No data available.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

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

REACH Regulation (EC) No 1907/2006 This product contains only components that have been either pre-registered, registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No.1907/2006 (REACH). The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Listed in Regulation: FLAMMABLE LIQUIDS

Number in Regulation: P5c

5,000 t

50,000 t

Listed in Regulation: ENVIRONMENTAL HAZARDS

Number in Regulation: E1

100 t

200 t

Listed in Regulation: Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) Number in Regulation: 34

2,500 t

25,000 t

15.2 For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H226 Flammable liquid and vapor. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 Flam. Liq. - 3 - H226 - On basis of test data. Skin Irrit. - 2 - H315 - On basis of test data. Eye Irrit. - 2 - H319 - On basis of test data. Skin Sens. - 1B - H317 - On basis of test data. STOT SE - 3 - H335 - Calculation method STOT SE - 3 - H336 - Calculation method STOT RE - 2 - H373 - Calculation method Asp. Tox. - 1 - H304 - Calculation method Aquatic Acute - 1 - H400 - On basis of test data. Aquatic Chronic - 1 - H410 - On basis of test data

Legend

Acute Tox. Acute toxicity Aquatic Acute Short-term (acute) aquatic hazard Aquatic Chronic Long-term (chronic) aquatic hazard Asp. Tox. Aspiration hazard Eye Dam. Serious eye damage Flam. Liq. Flammable liquids Skin Irrit. Skin irritation Skin Sens. Skin sensitization STOT RE Specific target organ toxicity - repeated exposure STOT SE Specific target organ toxicity - single exposure

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; ECNumber - European Community number; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association;

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This version replaces all previous versions.

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 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

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.