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

1.1. Product identifier CLAYTON DOCKER
1.2. Relevant identified uses of the substance or mixture and uses advised : Herbicide
1.3. Details of the supplier of the safety data sheet :
Clayton Plant Protection (UK) Ltd., Bracetown Business Park, Clonee, Dublin15. Ireland.
Tel: (00 353) 1 8210127 www.claytonpp.com Email: info@claytonpp.com
1.4 Emergency contact : Telephone NHS on 111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008:
Skin sensitisation - Category 1 - H317
Specific target organ toxicity - repeated exposure - Category 2 - H373
Acute aquatic toxicity - Category 1 - H400
Chronic aquatic toxicity - Category 1 - H410
For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements
Labelling: Regulation (EC) No. 1272/2008
Hazard Pictograms:

Signal word: WARNING
Hazard statements
H317 May cause an allergic skin reaction.
H373 May cause damage to organs (Kidney) through prolonged or repeated exposure. H410
Very toxic to aquatic life with long lasting effects.
Precautionary statements
P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/ protective clothing.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
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.
Supplemental information
EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
Contains Triclopyr-2-butoxyethyl ester
2.3 Other hazards No data available

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 81406-37-3 EC-No. 279-752-9 Index-No. 607-272-00-5	-	21.0%	fluoroxypyr-meptyl (ISO)	Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410
CASRN 64700-56-7 EC-No. 265-024-8 Index-No -	-	19.7%	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 26264-06-2 EC-No. 247-557-8 Index-No. –	01-2119560592-37	< 5.0 %	Calcium dodecylbenzene sulfonate	Acute Tox. - 4 - H302 Skin Irrit. - 2 - H315 Eye Dam. - 1 - H318

CASRN 78-83-1 EC-No. 201-148-0 Index-No. 603-108-00-1	-	< 5.0 %	2-methylpropan-1-ol	Flam. Liq. - 3 - H226 Skin Irrit. - 2 - H315 Eye Dam. - 1 - H318 STOT SE - 3 - H336 STOT SE - 3 - H335

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.

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.

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. Suitable emergency eye wash facility should be available in work area.

Ingestion: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control centre or doctor. Never 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: Skin contact may aggravate pre-existing dermatitis. 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.

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: Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Combustion products may include trace amounts of: Phosgene.

Unusual Fire and Explosion Hazards: Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

5.3 Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. 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 firefighting clothing (includes fire-fighting helmet, coat, trousers, boots, and gloves).

Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

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. No smoking in area. 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 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. 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 contact with eyes, skin, and clothing. Avoid breathing vapour or mist. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. 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. 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.
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.

Component	Regulation	Type of listing	Value/Notation
fluoroxypyr-meptyl (ISO)	TWA	10 mg/m3	
Triclopyr-2-butoxyethyl ester	TWA	2 mg/m3	
2-methylpropan-1-ol	ACGIH	TWA	50 ppm

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.

Derived No Effect Level 2-methylpropan-1-ol

Workers

Acute systemic effects			Acute local effects		Long-term systemic effects		Long-term local effects	
Dermal	Inhalation		Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation
n.a.	n.a.	n.a.	n.a.	Consumers	n.a.	n.a.	n.a.	310 mg/m3

Acute systemic effects			Acute local effects		Long-term systemic effects			Long-term local effects	
Dermal	Inhalation	Oral	Dermal	Inhalation	Dermal	Inhalation	Oral	Dermal	Inhalation
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	55 mg/m3

Predicted No Effect Concentration 2-methylpropan-1-ol

Compartment	PNEC
Fresh water	0.4 mg/l

Marine water 0.04 mg/l
Intermittent use/release 11 mg/l
Sewage treatment plant 10 mg/l
Soil 0.0699 mg/kg dry weight (d.w.)
Fresh water sediment 1.52 mg/kg dry weight (d.w.)
Marine sediment 0.152 mg/kg dry weight (d.w.)

8.2 Exposure controls
Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. 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: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. 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, should 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, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved airpurifying respirator. 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
Odour Mild
Odour Threshold No test data available pH
5.15 1%
Melting point/range No test data available

Freezing point No test data available
Boiling point (760 mmHg) No test data available
Flash point closed cup 85 °C ASTM D 93
Evaporation Rate (Butyl Acetate = 1) No test data available
Flammability (solid, gas) No data available
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) No test data available
Water solubility Emulsion
Partition coefficient: n-octanol/water No data available
Auto-ignition temperature No test data available
Decomposition temperature No test data available
Dynamic Viscosity 20.5 mPa.s at 20 °C OECD 114
Kinematic Viscosity No data available
Explosive properties No - Thermal
Oxidizing properties No
9.2 Other information
Liquid Density 1.02 g/cm3 at 20 °C
Molecular weight No data available

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

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No dangerous reaction known under conditions of normal use.
10.2 Chemical stability: Thermally stable at typical use temperatures.
10.3 Possibility of hazardous reactions: Polymerization will not occur.
10.4 Conditions to avoid: Exposure to elevated temperatures can cause product to decompose.
10.5 Incompatible materials: Avoid contact with: Acids. Bases. 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. Hydrogen chloride. Nitrogen oxides. Toxic gases are released during decomposition. Decomposition products can include trace amounts of: Phosgene.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.
11.1 Information on toxicological effects 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. Swallowing may result in gastrointestinal irritation. As product: LD50, Rat, 3,899 mg/kg
Acute dermal toxicity Prolonged skin contact is unlikely to result in absorption of harmful amounts. As product: LD50, Rat, > 5,000 mg/kg No deaths occurred at this concentration.
Acute inhalation toxicity Prolonged exposure is not expected to cause adverse effects. Excessive exposure may cause irritation to upper respiratory tract (nose and throat). As product: The LC50 has not been determined.
Skin corrosion/irritation Brief contact may cause slight skin irritation with local redness. May cause drying and flaking of the skin.
Serious eye damage/eye irritation May cause moderate eye irritation. Corneal injury is unlikely.
Sensitization Has demonstrated the potential for contact allergy in mice.
For respiratory sensitization: No relevant data found.
Specific Target Organ Systemic Toxicity (Single Exposure) Product test data not available. Refer to component data.
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: Central nervous system.
Carcinogenicity For similar active ingredient(s). Triclopyr. Fluroxypyr. Did not cause cancer in laboratory animals.
Teratogenicity For the active ingredient(s): Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.
Reproductive toxicity. For similar active ingredient(s). Triclopyr. 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): Fluroxypyr 1-methylheptyl ester. In animal studies, did not interfere with reproduction.
Mutagenicity For the active ingredient(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative. For the minor component(s): In vitro genetic toxicity studies were predominantly negative. Aspiration Hazard Based on physical properties, not likely to be an aspiration hazard.
COMPONENTS INFLUENCING TOXICOLOGY:
fluoroxypyr-meptyl (ISO)
Acute inhalation toxicity Prolonged exposure is not expected to cause adverse effects. Dust may cause irritation to upper respiratory tract (nose and throat). Maximum attainable concentration. LC50, Rat, male and female, 4 Hour, dust/mist, > 1.16 mg/l No deaths occurred at this concentration.
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. Specific Target Organ Systemic Toxicity (Single Exposure) Evaluation of available data suggests that this material is not an STOT-SE toxicant. Evaluation of available data suggests that this material is not an STOT-SE toxicant. Evaluation of available data suggests that this material is not an STOT-SE toxicant.
Calcium dodecylbenzene sulfonate
Acute inhalation toxicity Prolonged excessive exposure to dust may cause adverse effects. Dust may cause irritation to upper respiratory tract (nose and throat). LC50, Rat, dust/mist, > 2 mg/l Estimated. Specific Target Organ Systemic Toxicity (Single Exposure) Evaluation of available data suggests that this material is not an STOT-SE toxicant.
2-methylpropan-1-ol
Acute inhalation toxicity Prolonged excessive exposure may cause adverse effects. Vapor may cause irritation of the upper respiratory tract (nose and throat). Symptoms of excessive exposure may be anaesthetic or narcotic effects; dizziness and drowsiness may be observed. May cause central nervous system effects. LC50, Rat, male and female, 6 Hour, vapour, > 28.2 mg/l LC50, Rat, male and female, 4 Hour, vapour, > 8000 ppm
Specific Target Organ Systemic Toxicity (Single Exposure)
May cause drowsiness or dizziness. Route of Exposure: Inhalation Target Organs: Nervous system May cause respiratory irritation. Route of Exposure: Inhalation Target Organs: Respiratory Tract

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, 4.48 mg/l, OECD Test Guideline 203 or Equivalent
Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), semi-static test, 48 Hour, 32 mg/l, OECD Test Guideline 202 or Equivalent
Acute toxicity to algae/aquatic plants
ErC50, diatom Navicula sp., static test, 72 Hour, Growth rate inhibition, 0.854 mg/l, OECD Test Guideline 201 or Equivalent NOEC, Myriophyllum spicatum, Growth inhibition, 14-day, Growth inhibition, 0.0977 mg/l
Toxicity to Above Ground Organisms
oral LD50, Apis mellifera (bees), 48 Hour, > 217.4micrograms/bee contact LD50, Apis mellifera (bees), 48 Hour, > 200micrograms/bee
Toxicity to soil-dwelling organisms

LC50, Eisenia fetida (earthworms), 14 d, > 2,000 mg/kg
12.2 Persistence and degradability fluoroxypyr-meptyl
(ISO)
Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines. 10-day Window: Fail Biodegradation: 32 % Exposure time: 28 d Method: OECD Test Guideline 301D or Equivalent
Theoretical Oxygen Demand: 2.2 mg/mg
Stability in Water (1/2-life) Hydrolysis, half-life, 454 d
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 BOD 0.004 mg/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.
Calcium dodecylbenzene sulfonate
Biodegradability: For similar material(s): Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. 10-day Window: Pass
Biodegradation: 95 % Exposure time: 28 d Method: OECD Test Guideline 301E or Equivalent 2-methylpropan-1-ol
Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. 10-day Window: Pass
Biodegradation: 70 - 80 % Exposure time: 28 d Method: OECD Test Guideline 301D or Equivalent
10-day Window: Not applicable Biodegradation: 90 % Exposure time: 14 d
Method: OECD Test Guideline 301C or Equivalent
12.3 Bioaccumulative potential fluoroxypyr-meptyl
(ISO)
Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Partition coefficient: noctanol/water(log Pow): 5.04 Measured Bioconcentration factor (BCF): 26 Oncorhynchus mykiss (rainbow trout) Measured.
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
Calcium dodecylbenzene sulfonate
Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). Partition coefficient: n-octanol/water(log Pow): 4.77 at 25 °C estimated Bioconcentration factor (BCF): 71 Fish Estimated.
2-methylpropan-1-ol
Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Partition coefficient: noctanol/water(log Pow): 0.76 Measured Bioconcentration factor (BCF): 2 Estimated.
12.4 Mobility in soil fluoroxypyr-meptyl
(ISO)
Expected to be relatively immobile in soil (Koc > 5000). Partition coefficient (Koc): 6200 - 43000 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). Calcium dodecylbenzene sulfonate No relevant data found. 2-methylpropan-1-ol
Potential for mobility in soil is very high (Koc between 0 and 50). Partition coefficient (Koc): 2 Estimated.
12.5 Results of PBT and vPvB assessment fluoroxypyr-meptyl
(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).
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).
Calcium dodecylbenzene sulfonate
This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

2-methylpropan-1-ol
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 fluoroxypyr-meptyl (ISO) This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.
Triclopyr-2-butoxyethyl ester This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.
Calcium dodecylbenzene sulfonate This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.
2-methylpropan-1-ol 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 3082
14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Triclopyr, Fluroxypyr)
14.3 Transport hazard class(es) 9
14.4 Packing group III
14.5 Environmental hazards Triclopyr, Fluroxypyr
14.6 Special precautions for user Hazard Identification Number: 90 **Classification for SEA transport (IMO-IMDG):**
14.1 UN number UN 3082
14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Triclopyr, Fluroxypyr)
14.3 Transport hazard class(es) 9
14.4 Packing group III
14.5 Environmental hazards Triclopyr, Fluroxypyr
14.6 Special precautions for user EmS: F-A, S-F
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 3082
14.2 UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.(Triclopyr, Fluroxypyr)
14.3 Transport hazard class(es) 9
14.4 Packing group III
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 majoraccident hazards involving dangerous substances.
Listed in Regulation: ENVIRONMENTAL HAZARDS Number in Regulation: E1 100 t 200 t
15.2 Chemical safety assessment. 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 vapour. H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. 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. Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 Skin Sens. - 1 - H317 - On basis of test data. STOT RE - 2 - H373 - Calculation method Aquatic Acute - 1 - H400 - On basis of test data. Aquatic Chronic - 1 - H410 - On basis of test data. Legend ACGIH USA. ACGIH Threshold Limit Values (TLV) GB EH40 UK. EH40 WEL - Workplace Exposure Limits SKIN, DSEN, BEI Absorbed via Skin, Skin Sensitizer, Biological Exposure Indices STEL Short-term exposure limit (15-minute reference period) TWA Time Weighted Average (TWA): Acute Tox. Acute toxicity Aquatic Acute Acute aquatic toxicity Aquatic Chronic Chronic aquatic toxicity Eye Dam. Serious eye damage Flam. Liq. Flammable liquids Skin Irrit. Skin irritation Skin Sens. Skin sensitisation 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; AICS - Australian Inventory of Chemical Substances; 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; 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 Cooperation 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.

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