

CLAYTON PLANT PROTECTION

CLAYTON NERO Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 25/09/2015.
This version replaces all previous versions.

SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1

Product identifier CLAYTON NERO **1.2 Relevant identified uses of the substance.** 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

SECTION 2: Hazards identification 2.1. Classification of the substance or mixture

Acute aquatic toxicity, Category 1 H400: Very toxic to aquatic life.

Chronic aquatic toxicity, Category 1 H410: Very toxic to aquatic life with long lasting effects. Dangerous for the environment: R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements Warning



H410 Very toxic to aquatic life with long lasting effects.

Special labelling of certain substances and mixtures: EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

P391 Collect spillage.

P501 Dispose of contents/container to a waste disposal plant.

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 nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients 3.1. Substances not applicable 3.2.

Mixtures

Registration number	Classification according Directive 67/548/EEC	Classification according Regulation (EU) 1272/2008 (CLP)	Concentration
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Rimsulfuron (CAS-No. 122931-48-0)

	N; R50/53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	25 %
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Alkylphthalenesulfonic acid, sodium salt/formaldehyde polycondensate

	Xi;R36/38	Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 10 - < 15 %
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The above products are REACH compliant; 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.

For the full text of the R-phrases mentioned in this Section, see Section 16. 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. For specialist advice physicians should contact the National Poisons Information Service: Tel. 111 for England and Wales and Tel. 08454 24 24 24 for Scotland. Inhalation: Move to fresh air. Consult a physician after significant exposure. Artificial respiration and/or oxygen may be necessary. 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.

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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, Dry chemical, Foam, 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 full protective clothing and self-contained breathing apparatus. **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 : 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 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). If spill area is on ground near valuable plants or trees, remove 5 cm of top soil after initial clean-up.

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. Remove and wash contaminated clothing before re-use. Avoid exceeding of 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

Requirements for storage areas and containers: Store in a place accessible by authorized persons only. Store in original container. Keep in properly labelled containers. Keep containers tightly closed in a

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dry, cool and well-ventilated place. 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: Contains no substances with occupational exposure limit values. 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 13982-2) 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:** Low application (horticulture, field crops): Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Backpack / knapsack sprayer: Low application (horticulture, field crops): 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 should be worn when handling the treated plants after the application. Garment fabrics 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 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. For environmental protection remove and wash all contaminated protective equipment before re-use. Remove clothing/PPE immediately if material gets inside. 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)

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Spray application - outdoor: Tractor / sprayer with hood: No personal respiratory protective equipment normally required.

Tractor / sprayer without hood: Low application (horticulture, field crops): Half mask with a particle filter FFP1 (EN149)

Backpack / knapsack sprayer: Low application (horticulture, field crops): Half mask with a particle filter FFP1 (EN149) 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 :	solid	Oxidizing properties :	The product is not oxidizing.
Colour :	beige	Explosive properties :	Not explosive
Odour :	very faint Odour	Lower explosion limit/ lower flammability limit:	0.15 vol%
Threshold :	not determined	Upper explosion limit/ upper flammability limit:	Not available for this mixture.
pH :	7.0 at 10 g/l (25 °C)	Vapour pressure :	Not available for this mixture.
Melting point/range:	Not available for this mixture.	Bulk density :	727 kg/m3 , packed
Boiling point/ boiling range :	not applicable	Water solubility :	dispersible
Flash point :	not applicable	Partition coefficient n-octanol/water:	not applicable
Flammability (solid, gas) :	The product is not flammable.	Viscosity, kinematic :	not applicable
Thermal decomposition :	Not available for this mixture.	Relative vapour density :	not applicable
Auto-ignition temperature :	380 °C	Evaporation rate :	not applicable

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: Processing temperature : > 100 °C 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: No materials to be especially mentioned.

SECTION 11: Toxicological information 11.1. Information on toxicological effects

Acute oral toxicity LD50 / rat : > 5,000 mg/kg Method: OECD Test Guideline 401 (Data on the product itself). Acute inhalation toxicity LC50 / 4 h rat : > 7.5 mg/l Method: OECD Test Guideline 403 (Data on the product itself). Acute dermal toxicity LD50 / rabbit : > 2,000 mg/kg Method: OECD Test Guideline 402 (Data on the product itself). Skin irritation rabbit Result: No skin irritation Method: OECD Test

Guideline 404 (Data on the product itself) . Eye irritation rabbit Result: No eye irritation Method: OECD Test Guideline 405 (Data on the product itself) . Sensitisation guinea pig Maximisation Test (GPMT) Result: Animal test did not cause sensitization by skin contact. Method: OECD Test Guideline 406 (Data on the product itself) . Repeated dose toxicity • Rimsulfuron The following effects occurred at levels of exposure that significantly exceed those expected under labelled usage conditions. Oral -rat altered blood chemistry, Liver effects, Organ weight changes. Mutagenicity assessment • Rimsulfuron Tests on

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bacterial or mammalian cell cultures did not show mutagenic effects. Did not show mutagenic effects in animal experiments. Carcinogenicity assessment • Rimsulfuron Did not show carcinogenic effects in animal experiments. Toxicity to reproduction assessment • Rimsulfuron Animal testing did not show any effects on fertility. Assessment teratogenicity • Rimsulfuron Evidence suggests the substance is not a developmental toxin in animals. STOT - single exposure The substance or mixture is not classified as specific target organ toxicant, single exposure. 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 static test / LC50 / 96 h / *Oncorhynchus mykiss* (rainbow trout): 1,000 mg/l Method:

OECD Test Guideline 203 (Data on the product itself). Toxicity to aquatic plants ErC50 / 72 h / *Pseudokirchneriella subcapitata*: 0.2 mg/l Method: OECD Test Guideline 201 (Data on the product itself) EC50 / 14 d / *Lemna gibba* (duckweed): 0.0315 mg/l Method: US EPA Test Guideline OPP 122-2 & 123-2 Information source: Internal study report (Data on the product itself). Toxicity to aquatic invertebrates static test / EC50 / 48 h / *Daphnia magna* (Water flea): > 1.000 mg/l Method: OECD Test Guideline 202 (Data on the product itself) Toxicity to soil dwelling organisms LC50 / 14 d / *Eisenia fetida* (earthworms): > 1,000 mg/kg Method: OECD Test Guideline 207 (Data on the product itself) Toxicity to other organisms LD50 / *Colinus virginianus* (Bobwhite quail): > 2,250 mg/kg Method: US EPA Test Guideline OPP 71-1 (Data on the product itself) LC50 / 8 d / *Anas platyrhynchos* (Mallard duck): > 5,620 mg/kg Method: US EPA Test Guideline OPP 71-2 (Data on the product itself) LD50 / 48 h / *Apis mellifera* (bees): 0.0411 mg/kg Method: OECD Test Guideline 213 Oral (Data on the product itself) LD50 / 48 d / *Apis mellifera* (bees): 0.0178 mg/kg Method: OECD Test Guideline 214 Contact (Data on the product itself) Chronic toxicity to fish • Rimsulfuron NOEC / 90 d / *Oncorhynchus mykiss* (rainbow trout): 110 mg/l Chronic toxicity to aquatic Invertebrates • Rimsulfuron NOEC / 21 d / *Daphnia magna* (Water flea): 0.82 mg/l

12.2. Persistence and degradability Biodegradability Not readily biodegradable. Estimation based on data obtained on active ingredient.

12.3. Bioaccumulative potential Does not bioaccumulate. Estimation based on data obtained on active ingredient.

12.4. Mobility in soil Potentially mobile, but the leaching potential is mitigated by rapid degradation.

12.5. Results of PBT and vPvB assessment This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). / This mixture contains no substance considered to be very persistent nor 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.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging: Do not re-use empty containers.

SECTION 14: Transport information

ADR IATA_C IMDG	14.1.	UN number: 3077
	14.2.	UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Rimsulfuron)
	14.3.	Transport hazard class(es): 9
	14.4.	Packing group: III
	14.5.	Environmental hazards: Environmentally hazardous. Marine pollutant
	14.6.	Special precautions for user: Tunnel restriction code: (E) ICAO / IATA cargo aircraft only
14.7.		Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not applicable

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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

Text of R-phrases mentioned in Section 3 R36/38

Irritating to eyes and skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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	LD50 Median Lethal Dose
ATE Acute toxicity estimate	LOEC Lowest Observed Effect Concentration
CAS-No. Chemical Abstracts Service number	LOEL Lowest observable effect level
CLP Classification, Labelling and Packaging	MARPOL International Convention for the Prevention of Marine Pollution from Ships
EbC50 Concentration at which 50% reduction of biomass is observed	n.o.s. Not Otherwise Specified
EC50 Median effective concentration	NOAEC No Observed Adverse Effect Concentration
EN European Norm	NOAEL No observed adverse effect level
EPA Environmental Protection Agency	NOEC No Observed Effect Concentration
ErC50 Concentration at which a 50% inhibition of growth rate is observed	NOEL No Observed Effect Level
EyC50 Concentration at which 50 % inhibition of yield is observed	OECD Organisation for Economic Co-operation and Development
IATA_C International Air Transport Association (Cargo)	OPPTS Office of Prevention, Pesticides and Toxic Substances
IBC International Bulk Chemical Code	PBT Persistent, Bioaccumulative and Toxic
ICAO International Civil Aviation Organization	STEL Short term exposure limit TWA
ISO International Standard Organization	time weighted average
IMDG International Maritime Dangerous Goods	vPvB very Persistent and very Bioaccumulative
LC50 Median Lethal Concentration	

Further information : Before use, take notice of the directions of use on the label.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a

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warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.