

**DuPont™ GR2 Herbicide**

Version 2.1

Revision Date 02/28/2017

Ref. 130000145717

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DuPont™ GR2 Herbicide
Tradename/Synonym : Cloquintocet :Acetic acid, 2-[(5-chloro-8-quinolinyloxy)-
Pyroxsulam: N-(5,7-dimethoxy[1,2,4]triazolo[1,5-a]pyrimidin-2-yl)-2-methoxy-4-(trifluoromethyl)-3-pyridinesulfonamide

Product Use : Herbicide

Restrictions on use : Do not use product for anything outside of the above specified uses.

Manufacturer/Supplier : DuPont
974 Centre Road
Wilmington, DE 19805, USA

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887) :

SECTION 2. HAZARDS IDENTIFICATION**Product hazard category**

Skin sensitisation

Sub-category 1B

Label content

Pictogram :



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Signal word : Warning

Hazardous warnings : May cause an allergic skin reaction.

Hazardous prevention measures : Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Information presented in Section 2 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Cloquintocet	88349-88-6	45.15 %
Pyroxsulam	422556-08-9	21.5 %

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Kaolin	1332-58-7	4.2 %
Other Ingredients		29.15 %

SECTION 4. FIRST AID MEASURES

- General advice : Information presented in Section 4 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.
First Aid responders should pay attention to self-protection and use the recommended protective clothing For medical emergencies involving this product, call toll free 1-800-441-3637. See Label for Additional Precautions and Directions for Use. First aider needs to protect himself.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- Inhalation : Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
- Skin contact : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Dispose of contaminated clothing and shoes.
- Eye contact : Hold eye 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 eye. Call a poison control center or doctor for treatment advice.
- Ingestion : Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give anything by mouth to an unconscious person.

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Most important symptoms/effects, acute and delayed : No applicable data available.
Protection of first-aiders : No applicable data available.
Notes to physician : No applicable data available.

SECTION 5. FIREFIGHTING MEASURES

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

Unsuitable extinguishing media : High volume water jet, (contamination risk)

Specific hazards : Hazardous decomposition products nitrogen oxides Hydrogen chloride carbon dioxide Carbon monoxide

Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.

Further information : (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

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel) : Evacuate personnel to safe areas. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Wear suitable protective equipment.

Environmental precautions : Prevent material from entering sewers, waterways, or low areas.

Spill Cleanup : Sweep up and shovel into suitable containers for disposal.

Accidental Release Measures : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

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SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Do not swallow. Avoid contact with skin, eyes and clothing. Do not breathe dust or spray mist. Wash thoroughly after handling. Use only with adequate ventilation.
Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Handling (Physical Aspects) : Keep away from heat and sources of ignition.
- Dust explosion class : No applicable data available.
- Storage : Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in original container. Store in a cool, dry place. Keep out of the reach of children.
- Storage period : No applicable data available.
- Storage temperature : No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : Information presented in Section 8 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. **IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified for "Applicators and Other Handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.
- Personal protective equipment
- Hand protection : Material: Protective gloves



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- Eye protection : Wear protective eyewear to prevent contact with this substance.
- Skin and body protection : Applicators and other handlers must wear:
 Long sleeved shirt and long pants
 Shoes plus socks
 PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
 Coveralls
 Chemical resistant gloves made of any waterproof material
 Shoes plus socks
- Protective measures : Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Use this product in accordance with its label.

Exposure Guidelines
 Exposure Limit Values

Pyroxsulam
 No applicable data available.

Kaolin			
Permissible exposure limit:	(OSHA)	5 mg/m3	8 hr. TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m3	8 hr. TWA Total dust.
Permissible exposure limit:	(OSHA)	15 millions of particles per cubic foot of air	TWA
Permissible exposure limit:	(OSHA)	Respirable fraction.	
Permissible exposure limit:	(OSHA)	50 millions of particles per cubic foot of air	TWA Total
Permissible exposure limit:	(OSHA)	dust.	
Permissible exposure limit:	(OSHA)	5 mg/m3	TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m3	TWA Total dust.
TLV	(ACGIH)	2 mg/m3	TWA Respirable fraction.

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Remarks

The value is for particulate matter containing no asbestos and <1% crystalline silica.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : solid

Form : solid

Color : tan

Odor : mild

Odor threshold : No applicable data available.

pH : 4.13

Melting point/range : No applicable data available.

Boiling point/boiling range : No applicable data available.

Flash point : Method: closed cup
Not applicable

Evaporation rate : No applicable data available.

Flammability (solid, gas) : No applicable data available.

Upper explosion limit : No applicable data available.

Lower explosion limit : No applicable data available.

Vapour Pressure : No applicable data available.

Vapour density : No applicable data available.

Specific gravity (Relative density) : No applicable data available.

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Bulk density	:	591 kg/m ³ loose
Bulk density	:	653.8 kg/m ³ Tapped
Water solubility	:	No applicable data available.
Solubility(ies)	:	No applicable data available.
Partition coefficient: n-octanol/water	:	No applicable data available.
Auto-ignition temperature	:	No applicable data available.
Decomposition temperature	:	No applicable data available.
Viscosity, kinematic	:	No applicable data available.
Viscosity, dynamic	:	No applicable data available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable under recommended conditions of storage, use and temperature. Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions	:	Polymerization will not occur.
Conditions to avoid	:	To avoid thermal decomposition, do not overheat.
Incompatible materials	:	Avoid contact with: strong oxidizers
Hazardous decomposition products	:	Decomposition products may vary in nature depending upon actual conditions, eg. availability of oxygen, temperature and presence of other materials., Hazardous decomposition products may include:, Carbon monoxide, carbon dioxide, Hydrogen chloride, Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

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Inhalation 4 h LC50	:	> 5.12 mg/l , Rat Information given is based on data on the components.
Inhalation 4 h LC50	:	> 6.11 mg/l , male and female, Rat Information given is based on data on the components.
Dermal LD50	:	> 5,000 mg/kg , Rat Toxicology data for the components
Oral LD50	:	> 5,000 mg/kg , Rat Toxicology data for the components
Skin irritation	:	No skin irritation, Rabbit Minimal effects that do not meet the threshold for classification.
Eye irritation	:	No eye irritation, Rabbit Minimal effects that do not meet the threshold for classification.
Sensitisation	:	The product is a skin sensitiser, sub-category 1B., Guinea pig Active ingredient
Further information	:	Information presented in this Section conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.
Pyroxsulam		
Repeated dose toxicity	:	Ingestion multiple species - 90 d No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification., Liver effects
Carcinogenicity	:	Not classifiable as a human carcinogen. Overall weight of evidence indicates that the substance is not carcinogenic.
Mutagenicity	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Animal testing did not show any mutagenic effects.


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	Reproductive toxicity	:	No toxicity to reproduction
	Teratogenicity	:	Animal testing showed no developmental toxicity.
Kaolin	Carcinogenicity	:	Animal testing did not show any carcinogenic effects.
	Mutagenicity	:	Animal testing did not show any mutagenic effects. Evidence suggests this substance does not cause genetic damage in cultured mammalian cells.
	Reproductive toxicity	:	No toxicity to reproduction Evidence suggests the substance is not a reproductive toxin in animals.
	Teratogenicity	:	Evidence suggests the substance is not a developmental toxin in animals.

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

SECTION 12. ECOLOGICAL INFORMATION
Aquatic Toxicity
Cloquintocet

LC50	:	Cyprinodon variegatus (sheepshead minnow) > 120 mg/l
72 h ErC50	:	Pseudokirchneriella subcapitata (green algae) 66.5 mg/l
96 h ErC50	:	Skeletonema costatum (marine diatom) 12.5 mg/l
96 h ErC50	:	Anabaena flos-aquae (cyanobacterium) 23.7 mg/l
96 h EC50	:	Oyster, Crassostrea virginica > 110 mg/l


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96 h LC50 : Americamysis bahia (mysid shrimp) > 120 mg/l
 33 d flow-through test : NOEC Pimephales promelas (fathead minnow) 0.143 mg/l

Pyroxsulam

96 h LC50 : Oncorhynchus mykiss (rainbow trout) > 87 mg/l OECD Test Guideline 203
 7 d EC50 : Lemna minor (duckweed) 0.00388 mg/l OECD Test Guideline 221
 7 d NOEC : Lemna gibba (gibbous duckweed) 0.00068 mg/l
 48 h EC50 : Daphnia magna (Water flea) > 100 mg/l OECD Test Guideline 202
 40 d : NOEC Pimephales promelas (fathead minnow) 3.2 mg/l
 21 d : NOEC Daphnia magna (Water flea) 10.4 mg/l

Kaolin

96 h LC50 : Oncorhynchus mykiss (rainbow trout) > 4,887 mg/l

Environmental Fate

Cloquintocet

Bioaccumulation : Bioaccumulation is unlikely.

Additional ecological information : Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. See product label for additional application instructions relating to environmental precautions.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods - Product : Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Waste disposal methods - Container : Container Refilling and Disposal:
 Refer to the product label for instructions.
 Do not transport if this container is damaged or leaking.



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In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

Contaminated packaging : Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

IATA_C	UN number	: 3077
	Proper shipping name	: Environmentally hazardous substance, solid, n.o.s. (Pyroxsulam)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9MI
IMDG	UN number	: 3077
	Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Pyroxsulam)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9
	Marine pollutant	: yes (Pyroxsulam)

Not regulated as a hazardous material by DOT.

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA special provision A197, and ADR/RID special provision 375.

SECTION 15. REGULATORY INFORMATION

Other regulations : This Safety Data Sheet is for a pesticide product registered by the US Environmental Protection Agency (USEPA) and various state regulatory agencies, and is therefore also subject to certain requirements under US and state pesticide laws, including the Federal Insecticide Fungicide and

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Rodenticide Act (FIFRA). These requirements differ from the classification criteria and hazard information required by OSHA for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is information determined by USEPA, and various states.

Caution

Harmful if swallowed. Causes moderate eye irritation.

Avoid contact with eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

SARA 313 Regulated Chemical(s) : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances):
Kaolin

EPA Reg. No. : 352-921

SECTION 16. OTHER INFORMATION

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Contact person : DuPont Crop Protection, Wilmington, DE, 19805, Phone: 1-888-638-7668

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.

Significant change from previous version is denoted with a double bar.



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