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Safety Data Sheet
Drive XLR8

1. Identification

Product identifier used on the label

Drive XLR8

Recommended use of the chemical and restriction on use

Recommended use*: crop protection product, herbicide

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number:	252437
Registration number:	EPA Registration number: 7969-272
Molecular formula:	C10 H5 Cl2 N O2
Synonyms:	quinclorac

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
STOT RE	2	Specific target organ toxicity — repeated exposure

Label elements

Pictogram:

Signal Word:
Warning

Hazard Statement:

H319	Causes serious eye irritation.
H373	May cause damage to organs (Kidney) through prolonged or repeated exposure.

Precautionary Statements (Prevention):

P280	Wear eye protection.
P260	Do not breathe mist or vapour.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

Labeling of special preparations (GHS):
May produce an allergic reaction. Contains: quinclorac

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

quinclorac
CAS Number: 84087-01-4
Content (W/W): 15.95 %
Synonym: 3,7-Dichlorchinolin-8-carbonsäure

ethylene glycol
CAS Number: 107-21-1
Content (W/W): 25.0 - 75.0%
Synonym: 1,2-Ethanediol; Ethylene glycol

dimethylamine
CAS Number: 124-40-3
Content (W/W): 1.0 - 5.0%
Synonym: Dimethylamin

4. First-Aid Measures

Description of first aid measures

General advice:
Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

If on skin:
Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

If in eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:	Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon monoxide, carbon dioxide, Hydrogen chloride, nitrogen oxides, halogenated compounds, sulfur oxides
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions
Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Methods and material for containment and cleaning up
Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling
RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:
The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Conditions for safe storage, including any incompatibilities
Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.
Protect from temperatures above: 40 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

ethylene glycol	ACGIH, US:	TWA value 25 ppm Vapor fraction ;
	ACGIH, US:	STEL value 50 ppm Vapor fraction ;
	ACGIH, US:	STEL value 10 mg/m3 Inhalable fraction, Aerosole ;
dimethylamine	ACGIH, US:	STEL value 15 ppm ;
	ACGIH, US:	TWA value 5 ppm ;
	OSHA Z1:	PEL 10 ppm 18 mg/m3 ;

Advice on system design:
Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment
RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:
Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:
Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:
Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:
Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	characteristic	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
Colour:	yellow clear	
pH value:	approx. 7.9 - 9.9 (1 %(m), 25 °C)	
Boiling point:	approx. 197.4 °C (1,013 hPa) Information applies to the solvent.	
Flash point:	approx. 111 °C Information applies to the solvent.	
Flammability:	not applicable	
Autoignition:	approx. 398 °C Information applies to the solvent.	
Vapour pressure:	approx. 0.123 hPa (25 °C) Information applies to the solvent.	(measured)
Density:	approx. 1.13 g/cm3 (20 °C) 9.4378 Lb/USg (68 °F)	
Vapour density:	not applicable	
Partitioning coefficient n-octanol/water (log Pow):	The statements are based on the properties of the individual components.	
Information on: quinclorac		
Partitioning coefficient n-octanol/water (log Pow):	-0.74 (20 °C) -3.74 (20 °C) 1.76 (20 °C)	(Directive 92/69/EEC, A.8) (Directive 92/69/EEC, A.8) (Directive 92/69/EEC, A.8)

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	approx. 10.27 mPa.s (20 °C)	
Solubility in water:	dispersible	
Evaporation rate:	not applicable	
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
Not an oxidizer.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
The product is chemically stable.
Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid
Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Incompatible materials
strong oxidizing agents, strong bases, strong acids

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Slightly toxic after single ingestion. Relatively nontoxic after short-term inhalation. Relatively nontoxic after short-term skin contact.

Oral
Type of value: LD50
Species: rat
Value: > 2,000 mg/kg
No mortality was observed.

Inhalation
Type of value: LC50

Species: rat
Value: > 5.2 mg/l
Exposure time: 4 h
An aerosol was tested.
No mortality was observed.

Dermal
Type of value: LD50
Species: rat
Value: > 5,000 mg/kg

Assessment other acute effects
Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion
Assessment of irritating effects: Not irritating to the skin. May cause moderate but temporary irritation to the eyes.

Skin
Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye
Species: rabbit
May cause slight but temporary irritation to the eyes.

Sensitization
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

modified Buehler test
Species: guinea pig
Result: Non-sensitizing.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: ethylene glycol
Assessment of repeated dose toxicity: The substance may cause damage to the kidney after repeated ingestion. The substance may cause damage to the kidney after repeated skin contact with high doses.

Information on: dimethylamine
Assessment of repeated dose toxicity: The substance may cause damage to the upper respiratory tract after repeated inhalation, as shown in animal studies.

Genetic toxicity
Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity
Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: dimethylamine
Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by inhalation, a carcinogenic effect was not observed. Under certain conditions the substance can form nitrosamines. Nitrosamines are carcinogenic in animal studies.

Reproductive toxicity
Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity
Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: quinclorac
Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Information on: ethylene glycol
Assessment of teratogenicity: Developmental toxicity was observed after oral ingestion of high doses in studies with rats and mice, but this effect was not seen in a study with rabbits. Mechanistic studies show that the rabbit is the relevant species for the classification for human health. As such, and since ethylene glycol is not a developmental toxicant in the rabbit, no classification is warranted.

Other Information
Misuse can be harmful to health.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms.
The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

Information on: quinclorac
LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss

Aquatic invertebrates

Information on: quinclorac
LC50 (96 h) 67 mg/l, Mysidopsis bahia
LC50 (96 h) > 100 mg/l, Daphnia magna

Aquatic plants

Information on: quinclorac
EC50 (96 h) > 100 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
No observed effect concentration (96 h) 19.3 mg/l, Chlorella fusca
EC50 (96 h) 43.6 mg/l, Chlorella fusca

Chronic toxicity to fish

Information on: quinclorac
No observed effect concentration (38 d) 31 mg/l, Pimephales promelas

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Chronic toxicity to aquatic invertebrates

Information on: quinclorac
No observed effect concentration (21 d) 110 mg/l, Daphnia magna

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Assessment of terrestrial toxicity
With high probability not acutely harmful to terrestrial organisms.

Other terrestrial non-mammals

Information on: quinclorac

Bioaccumulative potential

Assessment bioaccumulation potential
The product has not been tested. The statement has been derived from the properties of the individual components.

Mobility in soil

Assessment transport between environmental compartments
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: quinclorac

Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Additional information

Other ecotoxicological advice:

The ecological data given are those of the active ingredient. Do not release untreated into natural waters.

13. Disposal considerations

Waste disposal of substance:
Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:
Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA:
This product is not regulated by RCRA.

14. Transport Information

Land transport
USDOT
Not classified as a dangerous good under transport regulations

Sea transport
IMDG
Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO
Not classified as a dangerous good under transport regulations

Further information
DOT: This product is regulated if the amount in a single receptacle exceeds the Reportable Quantity (RQ). Please refer to Section 15 of this SDS for the RQ for this product.

15. Regulatory Information

Federal Regulations

Registration status:
Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

EPCRA 313:

CAS Number	Chemical name
107-21-1	ethylene glycol
124-40-3	dimethylamine

CERCLA RQ	CAS Number	Chemical name
5000 LBS	107-21-1	ethylene glycol
1000 LBS	124-40-3	dimethylamine
10 LBS	7440-23-5	sodium

State regulations

State RTK	CAS Number	Chemical name
NJ	107-21-1	ethylene glycol
	124-40-3	dimethylamine
PA	107-21-1	ethylene glycol
	124-40-3	dimethylamine

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

BASF Risk Assessment, CA Prop. 65:

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

NFPA Hazard codes:
Health: 2 Fire: 1 Reactivity: 0 Special:

Labeling requirements under FIFRA

This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.
CAUTION:
KEEP OUT OF REACH OF CHILDREN.
Hazards to humans and domestic animals.
HARMFUL IF SWALLOWED.
HARMFUL IF ABSORBED THROUGH SKIN.
HARMFUL IF INHALED.
Causes moderate eye irritation.
Avoid contact with the skin, eyes and clothing.
Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
Avoid inhalation of dusts/mists/vapours.
May produce an allergic reaction.

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2023/04/22

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the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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