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CVR No. DK 12 76 00 43

SAFETY DATA SHEET

Gramin

Revision: Sections containing a revision or new information are marked with a ♣.

♣ SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. **Product identifier** .....

Gramin
Contains hydrocarbons, C10, aromatics, < 1% naphthalene, hydrocarbons, C10-C13, aromatics, < 1% naphthalene, ethoxylated dodecan-1-ol and calcium dodecylbenzene-sulphonate

1.2. **Relevant identified uses of the substance or mixture and uses advised against** .....

Can be used as herbicide only.

1.3. **Details of the supplier of the safety data sheet**

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SDS.Ronland@fmc.com

1.4. **Emergency telephone number**

Medical emergencies:

Austria: +43 1 406 43 43
Belgium: +32 70 245 245
Bulgaria: +359 2 9154 409
Cyprus: 1401
Czech Republic: +420 224 919 293
+420 224 915 402
Denmark: +45 82 12 12 12
England and Wales: 111
Estonia: +372 7943500
Finland: +358 9 471 977
France: +33 (0) 1 45 42 59 59
Greece: 30 210 77 93 777
Hungary: +36 80 20 11 99
Ireland (Republic): +353 1 837 9964
Italy: +39 02 6610 1029
Latvia: +371 670 42 473
112
Lithuania: +370 523 62052
+370 687 53378
Luxembourg: +352 8002 5500
Netherlands: +31 30 274 88 88
Norway: +47 22 591300
Poland: +48 22 619 66 54
+48 22 619 08 97
Portugal: 800 250 250 (in Portugal only)
+351 21 330 3284
Romania: +40 21318 3606
Scotland: +8454 24 24 24
Slovakia: +421 2 54 77 4 166
Slovenia: +386 41 650 500
South Africa: +27 83 123 3911 (Bateleur Emergency Response Co.)
Spain: +34 91 562 04 20
Sweden: +46 08-331231
112
Switzerland: 145
Turkey: 114
U.S.A. & Canada: +1 800 / 331 3148
All other countries: +1 651 / 632 6793 (Collect)

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For fire, leak, spill or other accident emergencies:

U.S.A.: +1 800 / 424 9300 (CHEMTREC)
All other countries: +1 703 / 741 5970 (CHEMTREC - Collect)

♣ SECTION 2: HAZARDS IDENTIFICATION

2.1. **Classification of the substance or mixture**

Acute inhalation toxicity: Category 4 (H332)
Eye damage: Category 1 (H318)
Skin sensitisation: Category 1 (H317)
Aspiration toxicity: Category 1 (H304)
Hazards to the aquatic environment, chronic: Category 1 (H410)

WHO classification ..... Class U (Unlikely to present acute hazard in normal use)

Health hazards ..... The product has irritating properties and may cause allergic reactions.

Environmental hazards ..... The product is very toxic to aquatic organisms.

2.2. **Label elements**

According to EU Reg. 1272/2008 as amended

Product identifier ..... Gramin
Contains hydrocarbons, C10, aromatics, < 1% naphthalene, hydrocarbons, C10-C13, aromatics, < 1% naphthalene, ethoxylated dodecan-1-ol and calcium dodecylbenzenesulphonate

Hazard pictograms (GHS05, GHS08, GHS07, GHS09)

Signal word ..... Danger

Hazard statements
H304 ..... May be fatal if swallowed and enters airways.
H317 ..... May cause an allergic skin reaction.
H318 ..... Causes serious eye damage.
H332 ..... Harmful if inhaled.
H410 ..... Very toxic to aquatic life with long lasting effects.

Supplementary hazard statements
EUH066 ..... Repeated exposure may cause skin dryness and cracking.
EUH401 ..... To avoid risks to human health and the environment, comply with the instructions of use.

Precautionary statements
P261 ..... Avoid breathing vapours.
P280 ..... Wear protective gloves and eye protection.
P302+P352 ..... IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 ..... IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P310 ..... Immediately call a POISON CENTER or physician.
P501 ..... Dispose of contents and container as hazardous waste.

2.3. **Other hazards** ..... None of the ingredients in the product meets the criteria for being PBT or vPvB.

♣ SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substances** ..... The product is a mixture, not a substance.

3.2. **Mixtures** ..... See section 16 for full text of hazard statements.

Active ingredient

Quizalofop-P-ethyl ..... Content: 5% by weight
CAS name ..... Propanoic acid, 2-[4-[(6-chloro-2-quinoxalinyl)oxy]phenoxy]-, ethyl ester, (R)-, (9CI)
CAS no. 100646-51-3
IUPAC name ..... Ethyl (R)-2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy]propionate
ISO name/EU name ..... Quizalofop-P-ethyl
EC no. (EINECS no.) ..... None
EU index no. ..... None
Molecular weight 372.80
Classification of the ingredient ..... Acute oral toxicity: Category 4 (H302)
Hazards to the aquatic environment,
acute: Category 1 (H400), M-factor 10
chronic: Category 1 (H410), M-factor 10

Reportable ingredients	Content (% w/w)	CAS no.	EC no.	Classification
Hydrocarbons, C10, aromatics, < 1% naphthalene Reg. no. 01-2119463583-34	< 75		918-811-1	STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) EUH066
Hydrocarbons, C10-C13, aromatics, < 1% naphthalene Reg. no. 01-2119451097-39	< 75		922-153-0	Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) EUH066
Ethoxylated dodecan-1-ol	< 25	9002-92-0		Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400)
Calcium dodecylbenzenesulphonate	< 5	26264-06-2	EINECS no.: 247-557-8	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)

♣ SECTION 4: FIRST AID MEASURES

4.1. **Description of first aid measures**

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Inhalation ..... If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.

Skin contact ..... Immediately remove contaminated clothing and footwear. Flush skin with water. Wash with water and soap. See physician if any symptom develops.

Eye contact ..... Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. See physician immediately.

Ingestion ..... Inducing vomiting is not recommended. Let the exposed person rinse mouth and drink water or milk. If vomiting does occur, take care that vomit does not enter airways. Let the exposed person rinse mouth and drink fluids again. Get medical attention immediately.

4.2. **Most important symptoms and effects, both acute and delayed** Primarily irritation. Allergic reactions may occur.

4.3. **Indication of any immediate medical attention and special treatment needed** Immediate medical attention is required in case of ingestion or eye contact.

It may be helpful to show this safety data sheet to physician.

Notes to physician ..... A specific antidote against this substance is not known. Gastric lavage and administration of activated charcoal can be considered. After decontamination, treatment is symptomatic and supportive as indicated.

The product contains petroleum distillates, which may pose an aspiration pneumonia hazard.

♣ SECTION 5: FIRE-FIGHTING MEASURES

5.1. **Extinguishing media** ..... Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams.

5.2. **Special hazards arising from the substance or mixture** The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as carbon monoxide, carbon dioxide, hydrogen chloride, nitrogen oxides, sulphur dioxide and various chlorinated organic compounds.

5.3. **Advice for firefighters** ..... Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

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♣ SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. **Personal precautions, protective equipment and emergency procedures**

It is recommended to have a predetermined plan for the handling of spills. Empty, closable vessels for the collection of spills should be available.

In case of large spill (involving 10 tonnes of the product or more):
1. use personal protection equipment; see section 8
2. call emergency telephone no.; see section 1
3. alert authorities.

Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and rubber boots.

Stop the source of the spill immediately if safe to do so. Keep unprotected persons away from the spill area. Avoid and reduce formation of vapour or mist as much as possible. Remove sources of ignition.

6.2. **Environmental precautions** .....

Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

6.3. **Methods and materials for containment and cleaning up**

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. See GHS (Annex 4, Section 6).

If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should be absorbed onto an absorptive material such as universal binder, Fuller's earth or other absorbent clays. Collect the contaminated absorbent in suitable containers. Clean area with detergent and much water. Absorb wash liquid with absorbent and transfer to suitable containers. The used containers should be properly closed and labelled.

Large spills which soak into the ground should be dug up and transferred to suitable containers.

Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal.

6.4. **Reference to other sections** .....

See subsection 8.2. for personal protection.
See section 13 for disposal.

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♣ SECTION 7: HANDLING AND STORAGE

7.1. **Precautions for safe handling** ....

In an industrial environment it is recommended to avoid all personal contact with the product, if possible by using closed systems with remote system control. The material should be handled by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise. For personal protection in this situation, see section 8.

For its use as a pesticide, first look for precautions and personal protection measures on the officially approved label on the packaging or for other official guidance or policy in force. If these are lacking, see section 8.

Keep all unprotected persons and children away from working area.

Remove contaminated clothing immediately. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and footwear. Take a shower, using water and soap. Wear only clean clothes when leaving job. Wash protective clothing and protective equipment with water and soap after each use.

Inhalation of vapours can cause lowered consciousness, which increases the risks of operating machinery and driving.

Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

7.2. **Conditions for safe storage, including any incompatibilities**

The product is stable under normal conditions of warehouse storage.

Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading “POISON” is recommended. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

7.3. **Specific end use(s)** .....

The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

♣ SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. **Control parameters**

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Personal exposure limits ..... To our knowledge, no exposure limits have been established for the active ingredient in this product.

Aromatic hydrocarbons ..... 100 ppm total hydrocarbon is recommended. The mixture contains trimethyl benzene. The ACGIH recommends a TLV-TWA of 25 ppm (123 g/m^3) for trimethyl benzene.

However, other personal exposure limits defined by local regulations may exist and must be observed.

Quizalofop-P-ethyl
DNEL ..... Not established
The EFSA has established an AOEL of 0.01 mg/kg bw/day
PNEC, aquatic environment ..... 1 µg/l

Aromatic hydrocarbons
DNEL, dermal ..... 12.5 mg/kg bw/day
DNEL, inhalation ..... 150 mg/m^3
PNEC. aquatic environment ..... Not applicable

8.2. **Exposure controls** ..... When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping systems non-hazardous before opening.

The precautions mentioned below are primarily meant for handling of the undiluted product and for preparing the spray solution, but can be recommended for spraying as well.

In cases of incidental high exposure, maximal personal protection may be necessary, such as respirator, face mask, chemical resistant coveralls.

Respiratory protection ..... In the event of an accidental discharge of the material which produces a heavy vapour or mist, workers must put on officially approved respiratory protection equipment with a universal filter type including particle filter.

Protective gloves ..... Wear long chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown. Generally, however, the use of protective gloves will give only partial protection against dermal exposure. Small tears in the gloves and cross-contamination can easily occur. It is recommended to limit the work to be done manually and to change the gloves regularly.

Eye protection ..... Wear safety glasses. It is recommended to have an eye wash fountain immediately available in the workplace when there is a potential for eye contact.

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Other skin protection

Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of excessive or prolonged exposure, coveralls of barrier laminate may be required.

♣ SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. **Information on basic physical and chemical properties**

Physical state	Liquid with visible traces of oil on the surface
Colour	Clear brown
Odour	Of aromatic hydrocarbons
Melting point/freezing point	Not determined
Boiling point or initial boiling point and boiling range	Not determined **Aromatic hydrocarbons** : 160 - 310°C
Flammability	Ignitable
Lower and upper explosive limit ..	**Aromatic hydrocarbons** : 0.6 - 7.0 vol% (≈ 0.6 - 0.7 kPa)
Flash point	76°C
Auto-ignition temperature	415°C
Decomposition temperature	Not determined
pH	1% suspension in water : 4.9
Kinematic viscosity	3.65 mm^2/s at 40°C
Solubility	The product can be emulsified in water Solubility of **quizalofop-P-ethyl** at 20°C in: ethyl acetate > 250 g/l n-heptane 7.2 g/l water < 0.61 mg/l
Partition coefficient n-octanol/water (log value)	**Quizalofop-P-ethyl** : log K_{ow} = 4.61 at 23°C **Aromatic hydrocarbons** : some of the main components have log K_{ow} = 3.4 - 4.4 at 25°C by model calculation
Vapour pressure	**Quizalofop-P-ethyl** : 1.1 x 10^{-7} Pa at 20°C **Aromatic hydrocarbons** : 1 kPa at 25°C
Density and/or relative density	Density: 0.96 g/ml at 20°C
Relative vapour density	(Air = 1) **Aromatic hydrocarbons** : > 1
Particle characteristics	Not applicable (liquid)

9.2. **Other information**

Evaporation rate	(Butyl acetate = 1) **Aromatic hydrocarbons** : < 0.01 - 0.15

♣ SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity** ..... To our knowledge, the product has no special reactivities.

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10.2. **Chemical stability** ..... The product is stable during normal handling and storage at ambient temperatures.

10.3. **Possibility of hazardous reactions** None known.

10.4. **Conditions to avoid** ..... Heating of the product will evolve harmful and irritant vapours. The product can be ignited by e.g. flame, spark or hot surface.

10.5. **Incompatible materials** ..... None known.

10.6. **Hazardous decomposition products** See subsection 5.2.

♣ SECTION 11: TOXICOLOGICAL INFORMATION

11.1. **Information on hazard classes as defined in Regulation (EC) No 1272/2008**

* = Based on available data, the classification criteria are not met.

Product

Acute toxicity ..... The product is harmful by inhalation but is not considered harmful by ingestion or by skin contact. The acute toxicity is measured as:

Route(s) of entry	- ingestion	LD_{50}, oral, rat: > 2000 mg/kg *
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg *
	- inhalation	LC_{50}, inhalation, rat: 2.91 mg/l/4 hod.

Skin corrosion/irritation ..... May be mildly irritating to skin. * May cause dry skin.

Serious eye damage/irritation ..... Seriously irritating to eyes.

Respiratory or skin sensitisation ... Weakly sensitising to skin.

Germ cell mutagenicity ..... The product contains no ingredient known to be mutagenic. *

Carcinogenicity ..... The product contains no ingredients known to be carcinogenic. *

Reproductive toxicity ..... The product contains no ingredients known to have adverse effects on reproduction. *

STOT – single exposure ..... If inhaled, the product may cause irritation of airways and disturbance of central nervous system. *

STOT – repeated exposure ..... The following is measured om the active ingredient quizalofop-P-ethyl:
Target organs: liver, kidneys and testes
LOAEL: 1280 ppm (ca. 90 mg/kg bw/day) in a 90-day rat study based on increased liver and kidney weight and decreased testes weight (method OECD 408). *

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Aspiration hazard ..... The product presents an aspiration pneumonia hazard.

Quizalofop-P-ethyl

Toxicokinetics, metabolism and distribution: After oral intake the substance is rapidly absorbed in the body and widely distributed. Excretion is also rapid, within a few days. It extensively metabolised. There is no evidence of accumulation.

Acute toxicity ..... Quizalofop-P-ethyl is harmful if swallowed. It is considered less harmful by inhalation and not harmful by skin contact. The acute toxicity is measured as:

Route(s) of entry	- ingestion	LD_{50}, oral, rat (female): 1182 mg/kg (method OECD 401)
	- skin	LD_{50}, dermal, rat: > 5000 mg/kg (method OECD 402) *
	- inhalation	LC_{50}, inhalation, rat: 5.8 mg/l/4 hod. (method OECD 403) *

Skin corrosion/irritation ..... Not irritating to skin (method OECD 404). *

Serious eye damage/irritation ..... Not irritating to eyes (method OECD 405). *

Respiratory or skin sensitisation ... Not a skin sensitizer (method OECD 406). *

Hydrocarbons, C10, aromatics, < 1% naphthalene

Acute toxicity ..... The substance is not considered as harmful. * The acute toxicity is measured as:

Route(s) of entry	- ingestion	LD_{50}, oral, rat: > 5000 mg/kg (method similar to OECD 401)
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg (method similar to OECD 402)
	- inhalation	LC_{50}, inhalation, rat: > 4.7 mg/l/4 h (vapour, method similar to OECD 403)

Skin corrosion/irritation ..... Mildly irritating to skin at prolonged exposure. Can cause skin dryness (method similar to OECD 404).

Serious eye damage/irritation ..... May cause mild, short-lasting discomfort to eyes (method similar to OECD 405). *

Respiratory or skin sensitisation ... To our knowledge, no indications of allergenic properties have been recorded. Measured on a similar substance: not a skin sensitizer (method similar to OECD 406). *

Aspiration hazard ..... Aromatic hydrocarbons present an aspiration hazard.

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

Acute toxicity ..... The substance is not considered as harmful. * The acute toxicity as measured on a similar product is:

Route(s) of entry	- ingestion	LD_{50}, oral, rat: > 5000 mg/kg (method OECD 401)
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg (method OECD 402)

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- inhalation — LC_{50}, inhalation, rat: > 4.7 mg/l (method OECD 403)

Skin corrosion/irritation ..... Can cause skin dryness (measured on similar products; method OECD 404).

Serious eye damage/irritation ..... May cause mild, short-lasting discomfort to eyes (measured on similar products; method OECD 405). *

Respiratory or skin sensitisation ... Not expected to cause respiratory or skin sensitisation (measured on similar products; method OECD 406). *

Aspiration hazard ..... Aromatic hydrocarbons present an aspiration hazard.

Calcium dodecylbenzenesulphonate

Acute toxicity ..... The substance is not considered as harmful by skin contact, ingestion and inhalation. * The acute toxicity is measured as:

Route(s) of entry - ingestion — LD_{50}, oral, rat: 4000 mg/kg

Skin corrosion/irritation ..... Irritating to skin.

Serious eye damage/irritation ..... Irritating to eyes with the potential to cause permanent eye damage.

11.2. **Information on other hazards** .... No more relevant information is available.

♣ SECTION 12: ECOLOGICAL INFORMATION

12.1. **Toxicity** ..... The product is toxic to aquatic organisms. It is not considered as harmful to birds and soil micro- and macroorganisms.

The following has been measured on the product:

- Fish	Rainbow trout	96-h LC_{50}: 4.2 mg/l
- Invertebrates	Daphnids (*Daphnia magna*)	48-h EC_{50}: 6.87 mg/l
- Algae	Green algae (*Selenastrum capricornutum*)	72-h EC_{50}: 1.98 mg/l
- Earthworms	*Eisenia foetida*	14-day LC_{50}: 746 mg/kg soil
- Insects	Bees (*Apis mellifera)*	LD_{50}, oral: > 100 µg/bee LD_{50}, contact: > 100 µg/bee

On the active ingredient **quizalofop-P-ethyl** the following has been measured:

- Fish	Rainbow trout	21-day LOEC: 79 µg/l
- Invertebrates	Daphnids (*Daphnia magna*)	21-day NOEC: 23 µg/l
- Algae	Green algae (*Pseudokirchneriella subcapitata*) ...	72-h NOEC: 10 µg/l
- Plants	Duckweed (*Lemna gibba*)	NOEC: > 610 µg/l

12.2. **Persistence and degradability** .... **Quizalofop-P-ethyl** is not readily biodegradable. However, it undergoes rapid degradation in the environment and in waste water

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treatment plants. Primary degradation half-lives are usually around 1 day (primary degradation) in different soil types. However, degradation products are degraded further much slower.

Aromatic hydrocarbons are not readily biodegradable. However, they are expected to be degraded in the environment at a moderate rate. When evaporated, the mixture is expected to degrade rapidly in the air.

The product contains minor amounts of not readily biodegradable ingredients which may not be degradable in waste water treatment plants.

12.3. **Bioaccumulative potential** .....

See section 9 for information on octanol-water partition coefficient.

Quizolofop-P-ethyl has a low potential to bioaccumulate. The bioaccumulation factor (BCF) has been measured as 290 – 380 in whole fish. It is excreted almost completely within 14 days.

Aromatic hydrocarbons have a moderate potential to bioaccumulate if continuous exposure is maintained. Most components can be metabolised by many organisms, bacteria, fungi, etc. Bioaccumulation factors of some of the main components are 300 - 3200 (by model calculation).

12.4. **Mobility in soil** .....

Quizolofop-P-ethyl has low to moderate mobility in soil.

Aromatic hydrocarbons are not mobile in the environment, but they are volatile and will rapidly evaporate to the air if released onto water or on the surface of soil. They float and can migrate to sediment.

12.5. **Results of PBT and vPvB assessment** .....

None of the ingredients meets the criteria for being PBT or vPvB.

12.6. **Endocrine disrupting properties**

None of the ingredients is known to have endocrine disrupting properties.

12.7. **Other adverse effects** .....

Other relevant hazardous effects in the environment are not known.

♣ SECTION 13: DISPOSAL CONSIDERATIONS

13.1. **Waste treatment methods** .....

Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste.

Disposal of waste and packagings must always be in accordance with all applicable local regulations.

Disposal of product .....

According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not feasible, the material can be disposed of by removal to a

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licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Disposal of packaging ..... It is recommended to consider possible ways of disposal in the following order:
1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.
2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill, containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

♣ SECTION 14: TRANSPORT INFORMATION

ADR/RID/IMDG/IATA/ICAO classification

14.1. **UN number** 3092

14.2. **UN proper shipping name** ..... Environmentally hazardous substance, liquid, n.o.s. (quizalofop-P-ethyl)

14.3. **Transport hazard class(es)** 9

14.4. **Packing group** III

14.5. **Environmental hazards** ..... Marine pollutant

14.6. **Special precautions for user** ..... Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment.

14.7. **Maritime transport in bulk according to IMO instruments** The product is not transported in bulk by ship.

♣ SECTION 15: REGULATORY INFORMATION

15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture** Seveso category (Dir. 2012/18/EU): dangerous for the environment

All ingredients are covered by EU chemical legislation.

15.2. **Chemical safety assessment** ..... A chemical safety assessment is not required to be included for this product.

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♣ SECTION 16: OTHER INFORMATION

Relevant changes in the safety data sheet

Numerous changes have been made to adapt the format of the safety data sheet, but these do not involve new information concerning hazardous properties.

List of abbreviations .....

ACGIH	American Conference of Governmental Industrial Hygienists
AOEL	Acceptable Operator Exposure Level
CAS	Chemical Abstracts Service
Dir.	Directive
DNEL	Derived No Effect Level
EC	European Community
EC_{50}	50% Effect Concentration
EFSA	European Food Safety Authority
EINECS	European INventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized classification and labelling System of chemicals, Seventh revised edition 2017
IMO	International Maritime Organisation
ISO	International Organisation for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC_{50}	50% Lethal Concentration
LD_{50}	50% Lethal Dose
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
NOEC	No Observed Effect Concentration
n.o.s.	Not otherwise specified
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative, Toxic
PNEC	Predicted No Effect Concentration
Reg.	Registration, or Regulation
STOT	Specific Target Organ Toxicity
TLV	Threshold Limit Value
TWA	Time Weighted Average
vPvB	very Persistent, very Bioaccumulative
WHO	World Health Organisation

References .....

Data measured on the product are unpublished company data. Data on ingredients are available from published literature and can be found several places.

Method for classification .....

Acute inhalation toxicity: test data
Eye damage: test data
Skin sensitisation: test data
Aspiration toxicity: test data
Hazards to the aquatic environment: calculation rules

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Used hazard statements	H302	Harmful if swallowed.
	H304	May be fatal if swallowed and enters airways.
	H315	Causes skin irritation.
	H317	May cause an allergic skin reaction.
	H318	Causes serious eye damage.
	H332	Harmful if inhaled.
	H336	May cause drowsiness and dizziness.
	H400	Very toxic to aquatic life.
	H410	Very toxic to aquatic life with long lasting effects.
	H411	Toxic to aquatic life with long lasting effects.
	EUH066	Repeated exposure may cause skin dryness and cracking.
	EUH401	To avoid risks to human health and the environment, comply with the instructions of use.

Advice on training ..... This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

The information provided in this safety data sheet is believed to be accurate and reliable, but uses of the product vary and situations unforeseen by FMC Corporation may exist. The user has to check the validity of the information under local circumstances.

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