SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments

PROGRASS™

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.12.2024	800080102441	Date of first issue: 09.12.2024

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

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

1.1 Product identifier

Trade name : PROGRASS™

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

Use of the Substance/Mixture : Plant Protection Product, Herbicide

1.3 Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION
Manufacturer/importer
Corteva Agriscience UK Ltd
Melbourn Science Park - Cambridge Road - Unit H4, Building H
Melbourn Cambridgeshire - SG8 6HB
UNITED KINGDOM

Customer Information Number : +44 8006 89 8899
E-mail address : SDS@corteva.com

1.4 Emergency telephone number

+44 161 88 41235

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Short-term (acute) aquatic hazard, Cate-	H400: Very toxic to aquatic life.

gory 1	
Long-term (chronic) aquatic hazard, Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms :

Signal word : Warning

Hazard statements :

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
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.

Disposal:

P501	Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

Hazardous components which must be listed on the label:

Triclopyr-2-butoxyethyl ester

Additional Labelling

EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegat-ed regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Fluroxypyr-meptyl	81406-37-3 279-752-9 607-272-00-5	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 _____ M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 100	26.734
Triclopyr-2-butoxyethyl ester	64700-56-7 265-024-8	Acute Tox. 4; H302 Skin Sens. 1B; H317 STOT RE 2; H373 (Kidney) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 _____ M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	25.895
Halauxifen-methyl	943831-98-9	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 _____	0.633

		M-Factor (Acute aquatic toxicity): 10,000 M-Factor (Chronic aquatic toxicity): 10,000	
Fatty acids, C12-14 (even numbered),methyl esters	308065-15-8 01-2119491160-46	Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute aquatic toxicity): 1	>= 20 - < 25
Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide	Not Assigned 909-125-3 01-2119974115-37	Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system)	>= 10 - < 20
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine	84961-74-0 284-664-9 01-2119985163-33	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 3; H412	>= 3 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

If inhaled : Move person to fresh air; if effects occur, consult a physician.

In case of skin contact : Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse.
Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

In case of eye contact : Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.
Suitable emergency eye wash facility should be immediately available.

If swallowed : If swallowed, seek medical attention. Do not induce vomiting

unless directed to do so by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist.
No specific antidote.
Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Alcohol-resistant foam

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Exposure to combustion products may be a hazard to health.
Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Nitrogen oxides (NOx)
Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Ensure adequate ventilation.
Use personal protective equipment.
Use appropriate safety equipment. For additional information,

refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions

Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.
Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
Prevent from entering into soil, ditches, sewers,underwater.
See Section 12, Ecological Information.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Clean up remaining materials from spill with suitable absorbant.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped,
Recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to overpressurization of the container.
Keep in suitable, closed containers for disposal.
Wipe up with absorbent material (e.g. cloth, fleece).
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
See Section 13, Disposal Considerations, for additional information.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : To avoid spills during handling keep bottle on a metal tray.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Do not breathe vapours/dust.
Do not smoke.
Handle in accordance with good industrial hygiene and safety practice.
Avoid exposure - obtain special instructions before use.

Smoking, eating and drinking should be prohibited in the application area.
Do not get on skin or clothing.
Avoid inhalation of vapour or mist.
Do not swallow.
Do not get in eyes.
Avoid contact with skin and eyes.
Keep container tightly closed.
Take care to prevent spills, waste and minimize release to the environment.
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in a closed container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in properly labelled containers. Store in accordance with the particular national regulations.

Advice on common storage : Do not store near acids.
Strong oxidizing agents

Packaging material : Unsuitable material: None known.

7.3 Specific end use(s)

Specific use(s) : Plant protection products subject to Regulation (EC) No 1107/2009.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Fluroxypyr-meptyl	81406-37-3	Time Weighted Average (TWA):	10 mg/m3	Dow IHG
Triclopyr-2-butoxyethyl ester	64700-56-7	Time Weighted Average (TWA):	2 mg/m3	Dow IHG

8.2 Exposure controls

Engineering measures

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
Local exhaust ventilation may be necessary for some operations.

Personal protective equipment

Eye/face protection : Use chemical goggles.
Hand protection

Remarks	:	Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
Skin and body protection	:	Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.
Respiratory protection	:	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In dusty or misty atmospheres, use an approved particulate respirator.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Liquid.
Colour	:	Brown
Odour	:	No data available
Odour Threshold	:	No data available
pH	:	4.75 Concentration: 1 %
Melting point/freezing point	:	Not applicable
Boiling point/boiling range	:	No data available
Flash point	:	95.0 °C
Evaporation rate	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available

Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1.089 g/cm3
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2 Other information

Surface tension	:	No data available
Self-ignition	:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

No decomposition if stored and applied as directed.
Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned. May form explosive dust-air mixture.

10.4 Conditions to avoid

Conditions to avoid	:	None known.

10.5 Incompatible materials

Materials to avoid	:	Strong acids

Strong bases

10.6 Hazardous decomposition products

Carbon oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

Fluroxypyr-meptyl:

Acute oral toxicity	:	LD50 (Rat, female): > 5,000 mg/kg Method: OECD Test Guideline 423 Symptoms: No deaths occurred at this concentration.
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 1.16 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute inhalation toxicity Remarks: Maximum attainable concentration.
Acute dermal toxicity	:	LD50 (Rat, female): > 5,000 mg/kg Method: OECD Test Guideline 402 Symptoms: No deaths occurred at this concentration.

Triclopyr-2-butoxyethyl ester:

Acute oral toxicity	:	LD50 (Rat, male and female): 500 mg/kg Method: OECD Test Guideline 423
Acute inhalation toxicity	:	LC50 (Rat): > 4.8 mg/l Exposure time: 4 h Test atmosphere: dust/mist Symptoms: The LC50 value is greater than the Maximum Attainable Concentration. Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute dermal toxicity LD50 (Rat): > 5,000 mg/kg

Halauxifen-methyl:

Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg
Method: OECD Test Guideline 423
Symptoms: No deaths occurred at this concentration.

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.39 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
Symptoms: No deaths occurred at this concentration.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 3.551 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: For similar material(s):

Skin corrosion/irritation

Product:

Species : EpiDerm™ skin model
Method : OECD Test Guideline 439
Result : No skin irritation
Remarks : Information source: Internal study report

Components:

Fluroxypyr-meptyl:

Species : Rabbit
Exposure time : 4 h

Method : OECD Test Guideline 404
Result : No skin irritation

Triclopyr-2-butoxyethyl ester:

Species : Rabbit
Result : No skin irritation

Halauxifen-methyl:

Species : Rabbit
Exposure time : 4 h
Method : OECD Test Guideline 404
Result : No skin irritation

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Species : Rabbit
Result : Skin irritation

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Result : Skin irritation

Serious eye damage/eye irritation

Product:

Method : OECD Test Guideline 492
Result : Eye irritation
Remarks : Information source: Internal study report

Components:

Fluroxypyr-meptyl:

Species : Rabbit
Method : OECD Test Guideline 405
Result : No eye irritation

Triclopyr-2-butoxyethyl ester:

Species : Rabbit
Result : No eye irritation

Halauxifen-methyl:

Species : Rabbit
Method : OECD Test Guideline 405
Result : No eye irritation

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Species : Rabbit
Result : Corrosive

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Result : Eye irritation

Respiratory or skin sensitisation

Components:

Fluroxypyr-meptyl:

Test Type : Local lymph node assay (LLNA)
Species : Mouse
Method : OECD Test Guideline 429
Result : Does not cause skin sensitisation.

Triclopyr-2-butoxyethyl ester:

Species : Guinea pig
Result : The product is a skin sensitiser, sub-category 1B.

Halauxifen-methyl:

Test Type : Local lymph node assay (LLNA)
Species : Mouse
Method : OECD Test Guideline 429
Result : Does not cause skin sensitisation.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Species : Guinea pig
Result : Does not cause skin sensitisation.
Remarks : For similar material(s):

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Species : Guinea pig
Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Components:

Fluroxypyr-meptyl:

Germ cell mutagenicity- Assessment : In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

Triclopyr-2-butoxyethyl ester:

Germ cell mutagenicity- Assessment : In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

Halauxifen-methyl:

Germ cell mutagenicity- Assessment : In vitro genetic toxicity studies were negative.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Germ cell mutagenicity- Assessment : In vitro genetic toxicity studies were negative.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Germ cell mutagenicity- Assessment : In vitro genetic toxicity studies were negative.

Carcinogenicity

Components:

Fluroxypyr-meptyl:

Carcinogenicity - Assessment : For similar active ingredient(s)., Fluroxypyr., Did not cause cancer in laboratory animals.

Triclopyr-2-butoxyethyl ester:

Carcinogenicity - Assessment : For similar active ingredient(s)., Triclopyr., Did not cause cancer in laboratory animals.

Halauxifen-methyl:

Carcinogenicity - Assessment : For similar active ingredient(s)., Halauxifen., Did not cause cancer in laboratory animals.

Reproductive toxicity

Components:

Fluroxypyr-meptyl:

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction.
Has been toxic to the fetus in laboratory animals at doses toxic to the mother., Did not cause birth defects in laboratory animals.

Triclopyr-2-butoxyethyl ester:

Reproductive toxicity - Assessment : For similar active ingredient(s)., Triclopyr., In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
Has been toxic to the fetus in laboratory animals at doses toxic to the mother., Did not cause birth defects in laboratory animals.

Halauxifen-methyl:

Reproductive toxicity - Assessment : For similar active ingredient(s)., Halauxifen., In animal studies, did not interfere with reproduction.
Has been toxic to the fetus in laboratory animals at doses toxic to the mother., Did not cause birth defects in laboratory animals.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Reproductive toxicity - Assessment : For similar material(s):, Did not cause birth defects or any other fetal effects in laboratory animals.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Reproductive toxicity - Assessment : Has been toxic to the fetus in laboratory animals at doses toxic to the mother., Did not cause birth defects in laboratory animals.

STOT - single exposure

Components:

Fluroxypyr-meptyl:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Triclopyr-2-butoxyethyl ester:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Halauxifen-methyl:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Fatty acids, C12-14 (even numbered),methyl esters:

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Exposure routes : Inhalation
Assessment : May cause respiratory irritation.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

STOT - repeated exposure

Components:

Fluroxypyr-meptyl:

Assessment : Evaluation of available data suggests that this material is not an STOT-RE toxicant.

Triclopyr-2-butoxyethyl ester:

Target Organs : Kidney
Assessment : May cause damage to organs through prolonged or repeated

exposure.

Repeated dose toxicity

Components:

Fluroxypyr-meptyl:

Remarks : Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Halauxifen-methyl:

Remarks : In animals, effects have been reported on the following organs:
Kidney.
Liver.
Thyroid.

Fatty acids, C12-14 (even numbered),methyl esters:

Remarks : No relevant data found.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Remarks : For similar material(s):
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Remarks : Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Aspiration toxicity

Components:

Fluroxypyr-meptyl:

Based on physical properties, not likely to be an aspiration hazard.

Triclopyr-2-butoxyethyl ester:

Based on physical properties, not likely to be an aspiration hazard.

Halauxifen-methyl:

Based on physical properties, not likely to be an aspiration hazard.

Fatty acids, C12-14 (even numbered),methyl esters:

Based on physical properties, not likely to be an aspiration hazard.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:
May be harmful if swallowed and enters airways.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:
Based on physical properties, not likely to be an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna): 23.7 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.798 mg/l End point: Growth rate Exposure time: 72 h Test Type: Static Method: OECD Test Guideline 201
Toxicity to soil dwelling organisms	:	LC50: > 1,000 mg/kg Exposure time: 28 d End point: growth Species: Eisenia andrei (red worm) Method: Estimated.
Toxicity to terrestrial organisms	:	contact LD50: > 200 µg/bee Exposure time: 48 h Species: Apis mellifera (bees) Method: OECD Test Guideline 214 oral LD50: > 214.2 µg/bee Exposure time: 48 h Species: Apis mellifera (bees) Method: OECD Test Guideline 213

Components:

Fluroxypyr-meptyl:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203 or Equivalent LC50 (Lepomis macrochirus (Bluegill sunfish)): > 100 mg/l Exposure time: 96 h Test Type: Static renewal test

		Method: OECD Test Guideline 203 or Equivalent
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (green algae): > 1.02 mg/l Exposure time: 72 h ErC50 (Navicula pelliculosa (Diatom)): > 1.410 mg/l Exposure time: 96 h ErC50 (Myriophyllum spicatum): 0.0113 mg/l Exposure time: 14 d NOEC (Myriophyllum spicatum): 0.00079 mg/l Exposure time: 14 d
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.32 mg/l Exposure time: 21 d Species: Rainbow trout (Oncorhynchus mykiss)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.0605 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)
M-Factor (Chronic aquatic toxicity)	:	100
Toxicity to soil dwelling organisms	:	LC50: > 1,000 mg/kg Species: Eisenia fetida (earthworms)
Toxicity to terrestrial organisms	:	Remarks: Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg). Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm). oral LD50: > 2000 mg/kg bodyweight. Exposure time: 5 d Species: Colinus virginianus (Bobwhite quail) dietary LC50: > 5000 mg/kg diet. Species: Colinus virginianus (Bobwhite quail) oral LD50: > 100 micrograms/bee Exposure time: 48 h Species: Apis mellifera (bees) contact LD50: > 100 micrograms/bee Exposure time: 48 h Species: Apis mellifera (bees)

Triclopyr-2-butoxyethyl ester:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.36 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2.9 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 3.00 mg/l End point: Growth rate inhibition Exposure time: 96 h Method: OECD Test Guideline 201 ErC50 (Myriophyllum spicatum): 0.0473 mg/l Exposure time: 14 d NOEC (Myriophyllum spicatum): 0.00722 mg/l Exposure time: 14 d
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.0263 mg/l Species: Rainbow trout (Oncorhynchus mykiss)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 1.6 mg/l End point: number of offspring Exposure time: 21 d Species: Daphnia magna (Water flea) LOEC: 5.1 mg/l End point: number of offspring Exposure time: 21 d Species: Daphnia magna (Water flea) MATC (Maximum Acceptable Toxicant Level): 2.9 mg/l End point: number of offspring Exposure time: 21 d Species: Daphnia magna (Water flea)
M-Factor (Chronic aquatic toxicity)	:	10
Toxicity to soil dwelling organisms	:	LC50: > 1,042 mg/kg Exposure time: 14 d Species: Eisenia fetida (earthworms)
Toxicity to terrestrial organisms	:	oral LD50: 735 mg/kg bodyweight. Exposure time: 21 d Species: Colinus virginianus (Bobwhite quail) dietary LC50: 1890 mg/kg diet.

Exposure time: 8 d
Species: Colinus virginianus (Bobwhite quail)

oral LD50: > 110 µg/bee
Exposure time: 48 h
End point: mortality
Species: Apis mellifera (bees)

contact LD50: > 100 µg/bee
Exposure time: 48 h
End point: mortality
Species: Apis mellifera (bees)

Halauxifen-methyl:

Toxicity to fish	:	LC50 (Rainbow trout (Oncorhynchus mykiss)): 2.01 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2.12 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 3.0 mg/l Exposure time: 96 h ErC50 (Myriophyllum spicatum): 0.000056 mg/l End point: Growth rate inhibition Exposure time: 14 d Test Type: Static renewal test ErC50 (blue-green algae): > 3.0 mg/l Exposure time: 96 h ErC50 (Lemna gibba (duckweed)): > 2.27 mg/l Exposure time: 7 d NOEC (Myriophyllum spicatum): 0.0000025 mg/l End point: Growth rate inhibition Exposure time: 14 d Test Type: Static renewal test ErC50 (Navicula pelliculosa (Freshwater diatom)): 1.50 mg/l Exposure time: 72 h NOEC (Lemna gibba (duckweed)): 0.121 mg/l Exposure time: 7 d
M-Factor (Acute aquatic toxicity)	:	10,000

Toxicity to microorganisms	:	EC50 (activated sludge): > 981 mg/l Exposure time: 1 d
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.536 mg/l Exposure time: 35 d Species: Pimephales promelas (fathead minnow) Test Type: flow-through test Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.484 mg/l End point: number of offspring Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test
M-Factor (Chronic aquatic toxicity)	:	10,000
Toxicity to soil dwelling organisms	:	LC50: > 1,000 mg/kg Exposure time: 14 d End point: mortality Species: Eisenia fetida (earthworms)
Toxicity to terrestrial organisms	:	dietary LC50: > 5,620 ppm Exposure time: 5 d Species: Colinus virginianus (Bobwhite quail) Method: Other guidelines dietary LC50: > 5,620 ppm Exposure time: 5 d Species: Anas platyrhynchos (Mallard duck) Method: Other guidelines oral LD50: > 2250 mg/kg bodyweight. End point: mortality Species: Colinus virginianus (Bobwhite quail) contact LD50: > 98.1 µg/bee Exposure time: 48 h End point: mortality Species: Apis mellifera (bees) oral LD50: > 108 µg/bee Exposure time: 48 h End point: mortality Species: Apis mellifera (bees)

Fatty acids, C12-14 (even numbered),methyl esters:

Toxicity to fish	:	Remarks: Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50 (Fish): > 0.52 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.255 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : LC50 (Algae): 0.324 mg/l
Exposure time: 72 h

NOEC (Algae): 0.0396 mg/l
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : 1

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 14.8 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 7.7 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 16.06 mg/l
Exposure time: 72 h

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Toxicity to fish : Remarks: Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50 (Fish): > 1 - 10 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7.1 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Algae): > 10 - 300 mg/l
Exposure time: 48 h

Toxicity to fish (Chronic toxicity) : NOEC: 0.23 mg/l
Species: Rainbow trout (Salmo gairdneri)

12.2 Persistence and degradability

Components:

Fluroxypyr-meptyl:

Biodegradability	:	Result: Not biodegradable Biodegradation: 32 % Exposure time: 28 d Method: OECD Test Guideline 301D or Equivalent Remarks: 10-day Window: Fail
ThOD	:	2.2 kg/kg
Stability in water	:	Test Type: Hydrolysis Degradation half life: 454 d

Triclopyr-2-butoxyethyl ester:

Biodegradability	:	Result: Not biodegradable Biodegradation: 18 % Exposure time: 28 d Method: OECD Test Guideline 301B or Equivalent Remarks: 10-day Window: Fail
Biochemical Oxygen Demand (BOD)	:	0.004 kg/kg
ThOD	:	1.39 kg/kg
Stability in water	:	Test Type: Hydrolysis Degradation half life (half-life): 8.7 d (25 °C) pH: 7
Photodegradation	:	Rate constant: 2.3E-11 cm3/s Method: Estimated.

Halauxifen-methyl:

Biodegradability	:	Test Type: O2 consumption Result: Not biodegradable Biodegradation: 38.68 % Exposure time: 14 d Method: OECD Test Guideline 301D

Fatty acids, C12-14 (even numbered),methyl esters:

Biodegradability	:	Result: Readily biodegradable. Remarks: Material is expected to be readily biodegradable.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Biodegradability	:	Remarks: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Result: Readily biodegradable.

Biodegradation: > 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent
Remarks: 10-day Window: Pass

Chemical Oxygen Demand (COD) : 2.890 mg/g

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Biodegradability : Remarks: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Result: Readily biodegradable.
Biodegradation: 87.35 %
Exposure time: 28 d
Method: OECD Test Guideline 301B or Equivalent

12.3 Bioaccumulative potential

Components:

Fluroxypyr-meptyl:

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)
Bioconcentration factor (BCF): 26
Method: Measured

Partition coefficient: n-octanol/water :

log Pow: 5.04
Method: Measured
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Triclopyr-2-butoxyethyl ester:

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 110

Partition coefficient: n-octanol/water : log Pow: 4.62
pH: 7
Remarks: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Halauxifen-methyl:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Exposure time: 42 d
Temperature: 21.8 °C
Concentration: 0.00194 mg/l
Bioconcentration factor (BCF): 233

Partition coefficient: n-octanol/water : log Pow: 3.76
Remarks: Bioconcentration potential is moderate (BCF be-

tween 100 and 3000 or Log Pow between 3 and 5).

Fatty acids, C12-14 (even numbered),methyl esters:

Partition coefficient: n-octanol/water : Remarks: No relevant data found.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Partition coefficient: n-octanol/water : log Pow: < 3.44 (20 °C)
Remarks: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Partition coefficient: n-octanol/water : log Pow: 0.51 (20 °C)
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

12.4 Mobility in soil

Components:

Fluroxypyr-meptyl:

Distribution among environmental compartments : Koc: 6200 - 43000
Remarks: Expected to be relatively immobile in soil (Koc > 5000).

Triclopyr-2-butoxyethyl ester:

Distribution among environmental compartments : Remarks: Calculation of meaningful sorption data was not possible due to very rapid degradation in the soil.
For the degradation product:
Triclopyr.
Potential for mobility in soil is very high (Koc between 0 and 50).

Stability in soil : Test Type: aerobic degradation
Dissipation time: 144 - 1,248 h

Halauxifen-methyl:

Distribution among environmental compartments : Koc: 5684
Remarks: Expected to be relatively immobile in soil (Koc > 5000).

Fatty acids, C12-14 (even numbered),methyl esters:

Distribution among environmental compartments : Remarks: No relevant data found.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Distribution among environmental compartments : Koc: 527.3
Remarks: Potential for mobility in soil is low (Koc between 500 and 2000).

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Distribution among environmental compartments : Remarks: No relevant data found.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

Fluroxypyr-meptyl:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Triclopyr-2-butoxyethyl ester:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Halauxifen-methyl:

Assessment : Substance is not persistent, bioaccumulative, and toxic (PBT).. Substance is not very persistent and very bioaccumulative (vPvB).

Fatty acids, C12-14 (even numbered),methyl esters:

Assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Assessment : Substance is not persistent, bioaccumulative, and toxic (PBT).. Substance is not very persistent and very bioaccumulative (vPvB).

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Assessment : Substance is not persistent, bioaccumulative, and toxic (PBT).. Substance is not very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Product:

Endocrine disrupting potential : This substance/mixture does not contain components considered to have endocrine disrupting properties for environment

according to UK REACH Article 57(f).

Components:

Fluroxypyr-meptyl:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Triclopyr-2-butoxyethyl ester:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Halauxifen-methyl:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Fatty acids, C12-14 (even numbered),methyl esters:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with 2-propanamine:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.
If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14: Transport information

14.1 UN number

ADR	:	UN 3082
RID	:	UN 3082
IMDG	:	UN 3082
IATA	:	UN 3082

14.2 UN proper shipping name

ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triclopyr-2-butoxyethyl ester, Halauxifen-methyl)
RID	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triclopyr-2-butoxyethyl ester, Halauxifen-methyl)
IMDG	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triclopyr-2-butoxyethyl Ester, Halauxifen-methyl)
IATA	:	Environmentally hazardous substance, liquid, n.o.s. (Triclopyr-2-butoxyethyl Ester, Halauxifen-methyl)

14.3 Transport hazard class(es)

		Class	Subsidiary risks
ADR	:	9	
RID	:	9	
IMDG	:	9	
IATA	:	9	

14.4 Packing group

ADR

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9
Tunnel restriction code	:	(-)

RID

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9

IMDG

Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F

Remarks	:	Stowage category A

IATA (Cargo)

Packing instruction (cargo aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

IATA (Passenger)

Packing instruction (passenger aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

14.5 Environmental hazards

ADR

Environmentally hazardous	:	yes

RID

Environmentally hazardous	:	yes

IMDG

Marine pollutant	:	yes(Triclopyr-2-butoxyethyl Ester, Halauxifen-methyl)

14.6 Special precautions for user

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.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant EU provisions transposed through retained EU law

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	:	Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	:	Not applicable
Regulation (EC) on substances that deplete the ozone layer	:	Not applicable

UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable	
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation	:	Not applicable	
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	E1	ENVIRONMENTAL HAZARDS	

Registration Number : MAPP 21097

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.
The mixture is evaluated within the frame of the provisions of Regulation (EC) No. 1107/2009.
Refer to the label for exposure assessment information.

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.
H373	:	May cause damage to organs through prolonged or repeated exposure.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
Dow IHG	:	Dow Industrial Hygiene Guideline
Dow IHG / TWA	:	Time Weighted Average (TWA):

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; ECx - Concentration associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IATA - International Air

Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - not otherwise specified; NOEC - Non-Observed Effective Concentration; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; (Q)SAR - (Quantitative) Structure Activity Relationship; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN - United Nations.

Further information

Classification of the mixture:		**Classification procedure:**
Acute Tox. 4	H302	Calculation method
Eye Irrit. 2	H319	Based on product data or assessment
Skin Sens. 1	H317	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Acute 1	H400	Based on product data or assessment
Aquatic Chronic 1	H410	Calculation method

Product code: GF-3635

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.

GB / 6N