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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	Mainman
Product code	:	IKI-220 500WG; IKI-220 50% WG; IBE-3894, C01828
Type of product	:	WG (Water dispersible granule)

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

1.2.1. Relevant identified uses

Main use category	:	Professional use
Use of the substance/mixture	:	Insecticide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Certis Belchim B.V.,
Suite 5, 3 Riverside, Granta Park,
Great Abington Cambridgeshire, CB21 6AD.
United Kingdom
T +44 (0)1223 652500, F +44 (0)1223 891210
info.uk@certisbelchim.com, www.certisbelchim.co.uk

1.4. Emergency telephone number

Emergency number	:	+44 1235 239670 24 H/7 days

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 2 H319
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice. Causes serious eye irritation.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP)	:	Warning
Hazard statements (CLP)	:	H319 - Causes serious eye irritation.
Precautionary statements (CLP)	:	P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention.
EUH-statements	:	EUH208 - Contains Disodium Maleate (ISO) (371-47-1). May produce an allergic reaction.

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

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Flonicamid	CAS-No.: 158062-67-0 EC Index-No.: 616-216-00-9	≥ 50 – ≤ 80	Acute Tox. 4 (Oral), H302 (ATE=884 mg/kg bodyweight)
Methylnaphtalenesulfonic acid/formaldehyde, copolymer, sodium salt	CAS-No.: 81065-51-2	≥ 1 – ≤ 5	Eye Irrit. 2, H319 Aquatic Chronic 3, H412
Docusate sodium	CAS-No.: 577-11-7 EC-No.: 209-406-4 REACH-no: 01-2119491296-29	≥ 1 – ≤ 5	Skin Irrit. 2, H315 Eye Dam. 1, H318
2,5-Furandione, polymer with 2,4,4-trimethylpentene, sodium salt	CAS-No.: 37199-81-8	> 1 – ≤ 5	Eye Irrit. 2, H319
Isotridecanol, ethoxylated	CAS-No.: 69011-36-5 EC-No.: 500-241-6	≥ 1 – ≤ 5	Aquatic Chronic 3, H412
Disodium maleate	CAS-No.: 371-47-1 EC-No.: 206-738-1	≥ 0.1 – ≤ 0.5	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335
toluene	CAS-No.: 108-88-3 EC-No.: 203-625-9 EC Index-No.: 601-021-00-3	< 0.2	Flam. Liq. 2, H225 Repr. 2, H361d Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Consult a doctor/medical service if you feel unwell.
First-aid measures after inhalation : Move the affected person to the fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Remove clothing before washing. Wash skin with mild soap and water. If case of redness or irritation, call a doctor.

First-aid measures after eye contact : Immediately rinse with plenty of water. Do not apply (chemical) neutralizing agents. Consult an ophtalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth out with water. Do not give an unconscious person anything to drink. Do not induce vomiting. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.

Symptoms/effects after eye contact : Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Polyvalent foam. ABC-powder. Carbon dioxide.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic and corrosive vapours may be released. Hydrogen cyanide. Hydrofluoric Acid. Carbon monoxide. Carbon dioxide. Nitrogen oxides.

5.3. Advice for firefighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray.

Protection during firefighting : Gloves. Protective non-flammable clothing. Dust cloud production: compressed air/oxygen apparatus. Heat/fire exposure: compressed air/oxygen apparatus. Gas-tight suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid dust production.

6.1.1. For non-emergency personnel

Protective equipment : Concerning personal protective equipment to use, see section 8.

Emergency procedures : Avoid contact with eyes. Do not breathe dust.

6.1.2. For emergency responders

Protective equipment : Protective gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.

6.2. Environmental precautions

Prevent soil and water pollution. Do not flush down sewers. Stop leak if safe to do so. Contain the spilled material by bunding. Knock down/dilute dust cloud with water spray.

6.3. Methods and material for containment and cleaning up

For containment : Knock down/dilute dust cloud with water spray. Take up liquid spill into inert absorbent material. Sweep or shovel spills into appropriate container for disposal. Store in tightly closed, leak-proof containers.

Methods for cleaning up : Clean contaminated surfaces with an excess of water.

Other information : Dispose of contaminated materials in accordance with current regulations. Wash clothing and equipment after handling.

6.4. Reference to other sections

Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid dust formation. Do not discharge the waste into the drain.
Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. If on skin, take off contaminated clothing. Wash clothing and equipment after handling. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Skin contact : refer to section 4.1.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep the container hermetically sealed. Store at ambient temperature.
Heat and ignition sources : Protect from heat and direct sunlight. Keep away from ignition sources.
Special rules on packaging : Store in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

toluene (108-88-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Toluene
IOEL TWA	192 mg/m³
	50 ppm
IOEL STEL	384 mg/m³
	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Provide local exhaust or general room ventilation.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:
Safety glasses. If dust are formed : Safety glasses with side shields

8.2.2.2. Skin protection

Skin and body protection:
protective clothing

Hand protection:
Wear protective gloves. Breakthrough time : refer to the recommendations of the supplier. The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard ISO 374-1

8.2.2.3. Respiratory protection

Respiratory protection:
Dust production: dust mask with filter type P1

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	brown.
Appearance	:	Granulate.
Odour	:	Faint odour of ammonia.
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	Not available
Boiling point	:	Not applicable
Flammability	:	Not flammable
Explosive properties	:	Not explosive.
Oxidising properties	:	Non oxidizing.
Explosive limits	:	Not applicable
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	Not self-igniting
Decomposition temperature	:	Not available
pH	:	Not available
pH solution	:	8.3 (1%; 22 °C)
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	Not applicable
Solubility	:	Not available.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	0.543 – 0.582 g/ml (Before - After compaction)
Relative density	:	Not applicable
Relative vapour density at 20°C	:	Not applicable
Particle size	:	Not available
Particle size distribution	:	Not available
Particle shape	:	Not available
Particle aspect ratio	:	Not available
Particle aggregation state	:	Not available

Particle agglomeration state : Not available
Particle specific surface area : Not available
Particle dustiness : Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not sustained combustibility : Yes

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid dust production.

10.5. Incompatible materials

None to our knowledge.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Mainman	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 423 method)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)
LC50 Inhalation - Rat	> 5.36 mg/l

Skin corrosion/irritation : Not classified
Additional information : Not irritating to rabbits on cutaneous application (OECD 404 method)
Serious eye damage/irritation : Causes serious eye irritation.
Additional information : Irritating to rabbits on ocular application (OECD 405 method)
Respiratory or skin sensitisation : Not classified
Additional information : Does not cause cutaneous sensitisation for guinea-pigs (OECD 406 method)
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Flonicamid (158062-67-0)	
NOAEL (chronic, oral, animal/male, 2 years)	7.32 mg/kg bw/day

Reproductive toxicity : Not classified

Flonicamid (158062-67-0)	
NOAEL (animal/male, F0/P)	18 mg/kg bodyweight (OECD 416 method)
NOAEL (animal/male, F1)	30 mg/kg bodyweight (OECD 416 method)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

Disodium maleate (371-47-1)	
STOT-single exposure	May cause respiratory irritation.

toluene (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Flonicamid (158062-67-0)	
NOAEL (subchronic, oral, animal/female, 90 days)	60 mg/kg bodyweight/day (OECD 408 method)

toluene (108-88-3)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified (Technical impossibility to obtain the data)

Mainman	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The substance/mixture has no endocrine disrupting properties.

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met) (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met) (Based on available data, the classification criteria are not met)

Mainman	
LC50 - Fish [1]	> 100 mg/l (96H; Oncorhynchus mykiss)
EC50 - Crustacea [1]	> 100 mg/l (48H; Daphnia magna)
ErC50 algae	> 100 mg/l (72H; Pseudokirchneriella subcapitata)

Flonicamid (158062-67-0)	
NOEC chronic fish	10 mg/l (OECD 210 method)
NOEC chronic crustacea	3.1 mg/l (OECD 211 method)

Flonicamid (158062-67-0)	
NOEC chronic algae	46 mg/l (OECD 201 method)

12.2. Persistence and degradability

Flonicamid (158062-67-0)	
Persistence and degradability	Not readily biodegradable.

Docusate sodium (577-11-7)	
Persistence and degradability	Readily biodegradable.

Isotridecanol, ethoxylated (69011-36-5)	
Persistence and degradability	Readily biodegradable.
Biodegradation	> 60 % CO2 (28 days) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) ; >= 90 % Bismuth-active substance (OECD 301E) / By analogy

12.3. Bioaccumulative potential

Flonicamid (158062-67-0)	
Partition coefficient n-octanol/water (Log Pow)	-0.24 (20 °C)
Bioaccumulative potential	Not potentially bioaccumulable.

Isotridecanol, ethoxylated (69011-36-5)	
Bioaccumulative potential	Negligible.

12.4. Mobility in soil

Flonicamid (158062-67-0)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.77

12.5. Results of PBT and vPvB assessment

Mainman
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The substance/mixture has no endocrine disrupting properties.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not dispose of with domestic waste.

Product/Packaging disposal recommendations : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber. Dispose of in accordance with relevant local regulations.

Ecological information : Do not discharge into drains or rivers.

European List of Waste (LoW, EC 2000/532) : 07 04 99 - wastes not otherwise specified
15 01 02 - plastic packaging

HP Code : HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport
Not regulated

Transport by sea
Not regulated

Air transport
Not regulated

Inland waterway transport
Not regulated

Rail transport
Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category	Threshold	Annex
Toluene		108-88-3	2902 30 00	Category 3		Annex I

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
	Supersedes	Modified	
	Revision date	Modified	
1.1	Product code	Modified	
1.4	Emergency procedures	Modified	
11.2.	Adverse health effects caused by endocrine disrupting properties	Added	
12.6	Adverse effects on the environment caused by endocrine disrupting properties	Added	

Abbreviations and acronyms:	
PBT	Persistent Bioaccumulative Toxic
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
vPvB	Very Persistent and Very Bioaccumulative
LC50	Median lethal concentration
LD50	Median lethal dose
EC50	Median effective concentration
NOEC	No-Observed Effect Concentration
IMDG	International Maritime Dangerous Goods

Abbreviations and acronyms:	
IATA	International Air Transport Association
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EN	European Standard
IARC	International Agency for Research on Cancer
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PNEC	Predicted No-Effect Concentration
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
ED	Endocrine disrupting properties

Data sources : SDS of suppliers. ECHA (European Chemicals Agency).

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2

Full text of H- and EUH-statements:	
H225	Highly flammable liquid and vapour.
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.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Eye Irrit. 2	H319	

The classification complies with : ATP 8

Safety Data Sheet (SDS), EU Certis Belchim

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.