



## MAISTER

Version 1 / GB  
102000012405

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Revision Date: 26.02.2013  
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### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

Trade name MAISTER  
Product code (UVP) 06480500

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

Use Herbicide

#### 1.3 Details of the supplier of the safety data sheet

Supplier Bayer CropScience Limited  
230 Cambridge Science Park  
Milton Road  
Cambridge  
Cambridgeshire CB4 0WB  
United KingdomTelephone +44(0)1223 226500  
Telefax +44(0)1223 426240  
Responsible Department Email: [ukinfo@bayercropscience.com](mailto:ukinfo@bayercropscience.com)

#### 1.4 Emergency telephone no.

Emergency telephone no. 0800-220876 (UK 24 hr)  
+44(0)1635-563000 (Overseas 24 hr)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification according to EU Directives 67/548/EEC or 1999/45/EC

R43  
N Dangerous for the environment, R50/53

#### 2.2 Label elements

##### Labelling in accordance with the EU Directive on dangerous preparations 1999/45/EC, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Iodosulfuron-methyl-sodium
- Isoxadifen-ethyl
- Foramsulfuron

Symbol(s)



Xi

Irritant

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N Dangerous for the environment

## R-phrases(s)

R43

May cause sensitization by skin contact.

R50/53

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

To avoid risks to man and the environment, comply with the instructions for use.

## S-phrases(s)

S24

Avoid contact with skin.

S35

This material and its container must be disposed of in a safe way.

S37

Wear suitable gloves.

S57

Use appropriate container to avoid environmental contamination.

**2.3 Other hazards**

No other hazards known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Chemical nature**

Water dispersible granules (WG)

Foramsulfuron/Iodosulfuron-methyl-sodium/Isoxadifen-ethyl 30,0:1,0:30,0 % ww

**Hazardous components**

R-phrases(s) according to EC directive 67/548/EEC

Hazard statements according to Regulation (EC) No. 1907/2006

Name	CAS-No. / EC-No.	Classification		Concentration [%]
		EC Directive 67/548/EEC	Regulation (EC) No 1272/2008	
Foramsulfuron	173159-57-4	R52/53	Aquatic Chronic 3, H412	30.00
Iodosulfuron- methyl-sodium	144550-36-7	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	1.00
Isoxadifen-ethyl	163520-33-0 443-870-0	Xn; R22 R43 N; R50/53	Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	30.00
Olefin sulphonate, sodium salt	68439-57-6 270-407-8	Xi; R38, R41	Skin Irrit. 2, H315 Eye Dam. 1, H318	> 1.00 - < 5.00

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Polyarylphenylether sulfate, ammonium salt	119432-41-6	R52/53	Aquatic Chronic 3, H412	> 1.00 - < 25.00
Calcium carbonate	1317-65-3 215-279-6	Not classified	Not classified	> 1.00

**Further information**

Iodosulfuron-methyl-sodium	144550-36-7	M-Factor: 1,000 (acute)
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For the full text of the R-phrases/ Hazard statements mentioned in this Section, see Section 16.

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures****General advice**

Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely.

**Inhalation**

Move to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.

**Skin contact**

If symptoms persist, call a physician. Wash off immediately with soap and plenty of water.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

**Ingestion**

Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately. Risk of product entering the lungs on vomiting after ingestion.

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

The product causes irritation of eyes, skin and mucous membranes., Allergic reactions

**4.3 Indication of any immediate medical attention and special treatment needed****Treatment**

Treat symptomatically.

Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate.

There is no specific antidote.

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing media**

Water spray

Foam

Carbon dioxide (CO<sub>2</sub>)

Dry powder

**Unsuitable extinguishing media**



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High volume water jet

### 5.2 Special hazards arising from the substance or mixture

In the event of fire the following may be released:  
Carbon monoxide (CO)  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides  
Hydrogen iodide (HI)

### 5.3 Advice for firefighters

#### Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

#### Further information

Do not allow run-off from fire fighting to enter drains or water courses.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

### 6.2 Environmental precautions

Do not allow to get into surface water, drains and ground water.  
If spillage enters drains leading to sewage works inform local water company immediately.  
If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

### 6.3 Methods and materials for containment and cleaning up

#### Methods for cleaning up

Use mechanical handling equipment.  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

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## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

#### Advice on safe handling

Use only in area provided with appropriate exhaust ventilation.  
Avoid dust formation.

#### Advice on protection against fire and explosion

Care should be taken to avoid formation of dust from abraded granules.

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**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

When using, do not eat, drink or smoke.

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

**7.2 Conditions for safe storage, including any incompatibilities****Requirements for storage areas and containers**

Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep away from direct sunlight.

**Advice on common storage**

Keep away from food, drink and animal feedingstuffs.

**7.3 Specific end uses**

Refer to the label and/or leaflet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Foramsulfuron	173159-57-4	10 mg/m <sup>3</sup> (TWA)		OES BCS*
Iodosulfuron-methyl-sodium	144550-36-7	1 mg/m <sup>3</sup> (TWA)		OES BCS*
Isoxadifen-ethyl	163520-33-0	1 mg/m <sup>3</sup> (TWA)		OES BCS*
Calcium carbonate (Inhalable dust.)	1317-65-3	10 mg/m <sup>3</sup> (TWA)	12 2011	EH40 WEL
Calcium carbonate (Respirable.)	1317-65-3	4 mg/m <sup>3</sup> (TWA)	12 2011	EH40 WEL
Calcium carbonate (Inhalable)	1317-65-3	10 mg/m <sup>3</sup> (TWA)	12 2011	EH40 WEL
Calcium carbonate (Respirable dust.)	1317-65-3	4 mg/m <sup>3</sup> (TWA)	12 2011	EH40 WEL

\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

**8.2 Exposure controls**

**Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.**

**Personal protective equipment**

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

**Respiratory protection**

Wear respirator with a particle filter mask (protection factor 4) conforming to European norm EN149FFP1 or equivalent.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or

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	local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
Hand protection	Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.
Eye protection	Wear goggles conforming to EN166 (Field of Use 5 or equivalent).
Skin and body protection	Wear standard coverall and type 4 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Form	water-dispersible granules
Colour	beige
pH	6.8 - 7.8 at 1 % (23 °C) (deionized water)
Flash point	not applicable
Autoignition temperature	385 °C
Bulk density	598 - 702 kg/m <sup>3</sup> (loose)
Water solubility	dispersible
Combustion number	CN3 Local combustion without spreading
Oxidizing properties	The product has been shown not to be oxidising in a test following Directive 67/548/EEC (Method A17, oxidising properties).
Explosivity	Not explosive
Dust content	nearly dust-free

**9.2 Other information**

Further safety related physical-chemical data are not known.

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**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity**

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Stable under normal conditions.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No hazardous reactions when stored and handled according to prescribed instructions.

**10.4 Conditions to avoid**

Extremes of temperature and direct sunlight.

**10.5 Incompatible materials**

Store only in the original container.

**10.6 Hazardous decomposition products**

No decomposition products expected under normal conditions of use.

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

Acute oral toxicity LD50 (rat) 4,300 mg/kg

Acute inhalation toxicity LC50 (rat) > 4.69 mg/l  
Exposure time: 4 h  
Determined in the form of a respirable fine dust.  
Highest attainable concentration.  
Not relevant because of low dust formation.

Acute dermal toxicity LD50 (rat) > 5,000 mg/kg

Skin irritation Slight irritant effect - does not require labelling. (rabbit)

Eye irritation Slight irritant effect - does not require labelling. (rabbit)

Sensitisation Sensitising (guinea pig)  
OECD Test Guideline 406, Buehler test

**Assessment repeated dose toxicity**

Foramsulfuron did not cause specific target organ toxicity in experimental animal studies.

Iodosulfuron-methyl-sodium did not cause specific target organ toxicity in experimental animal studies.

Isoxadifen-ethyl did not cause specific target organ toxicity in experimental animal studies.

**Assessment Mutagenicity**

Foramsulfuron was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Iodosulfuron-methyl-sodium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Isoxadifen-ethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment Carcinogenicity**

Foramsulfuron was not carcinogenic in lifetime feeding studies in rats and mice.

Iodosulfuron-methyl-sodium was not carcinogenic in lifetime feeding studies in rats and mice.

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Isoxadifen-ethyl was not carcinogenic in lifetime feeding studies in rats and mice.

**Assessment Toxicity to Reproduction**

Foramsulfuron did not cause reproductive toxicity in a two-generation study in rats.

Iodosulfuron-methyl-sodium did not cause reproductive toxicity in a two-generation study in rats.

Isoxadifen-ethyl did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

Foramsulfuron did not cause developmental toxicity in rats and rabbits.

Iodosulfuron-methyl-sodium did not cause developmental toxicity in rats and rabbits.

Isoxadifen-ethyl did not cause developmental toxicity in rats and rabbits.

**Further information**

Information given is based on data obtained from similar substances.

The toxicological data refer to a similar formulation.

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**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

Toxicity to fish LC50 (Rainbow trout (*Oncorhynchus mykiss*)) 2.6 mg/l  
Exposure time: 96 h

LC50 (*Lepomis macrochirus* (Bluegill sunfish)) 2.8 mg/l  
Exposure time: 96 h

Toxicity to aquatic invertebrates EC50 (Water flea (*Daphnia magna*)) > 100 mg/l  
Exposure time: 48 h

Toxicity to aquatic plants EC50 (*Pseudokirchneriella subcapitata*) 0.74 mg/l  
Exposure time: 96 h

EC50 (*Lemna gibba* (duckweed)) 2.8 - 8 µg/l  
Exposure time: 7 d

**12.2 Persistence and degradability**

Biodegradability Inherently biodegradable.

**12.3 Bioaccumulative potential**

Bioaccumulation Not applicable for this mixture.

**12.4 Mobility in soil**

Mobility in soil Not applicable for this mixture.

**12.5 Results of PBT and vPvB assessment**

Not relevant as no chemical safety report is necessary.

**12.6 Other adverse effects**

Additional ecological information

The ecological data refer to a similar formulation.



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In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

**Contaminated packaging**

Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times.

Add washings to sprayer at time of filling.

Dispose of empty and cleaned packaging safely.

Large containers (> 25 l or > 25 kg) should not be rinsed or re-used for any other purpose.

Return large containers to supplier.

Follow advice on product label and/or leaflet.

**Waste key for the unused product**

020108 agrochemical waste containing dangerous substances

**SECTION 14: TRANSPORT INFORMATION****ADR/RID/ADN**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ISOXADIFEN-ETHYL MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90
Tunnel Code	E

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

**IMDG**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ISOXADIFEN-ETHYL MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

**IATA**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

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	(ISOXADIFEN-ETHYL MIXTURE )
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

**UK 'Carriage' Regulations**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ISOXADIFEN-ETHYL MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Emergency action code	2Z

**14.6 Special precautions for user**

See sections 6 to 8 of this Safety Data Sheet.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No transport in bulk according to the IBC Code.

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**SECTION 15: REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Further information

WHO-classification: III (Slightly hazardous)

**15.2 Chemical Safety Assessment**

A chemical safety assessment is not required.

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**SECTION 16: OTHER INFORMATION**

Text of R-phrases mentioned in Section 3

R22	Harmful if swallowed.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Text of the hazard statements mentioned in Section 3

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.



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H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

The above information is intended to give general health and safety guidance on the storage and transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

Reason for Revision: Safety Data Sheet according to Regulation (EU) No. 453/2010.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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