SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006



MERIT TURF

 Version 5 / GB
 Revision Date: 01.10.2012

 102000007882
 Print Date: 01.11.2012

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

1.1 Product identifier

Trade name MERIT TURF Product code (UVP) 05666341

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

Jse Insecticide

1.3 Details of the supplier of the safety data sheet

Supplier Bayer Environmental Science

230 Cambridge Science Park

Milton Road Cambridge

Cambridgeshire CB4 0WB

Great Britain

Telephone 00800-1214 9451 Telefax +44(0)1223 426240

Responsible Department Email: 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

Xi Irritant, R36

N Dangerous for the environment, R51/53

2.2 Label elements

Labelling according to specific UK regulations:

The labelling information below is that which has been approved under 'The Control of Pesticides Regulations 1986' and/or 'Part III of the Food and Environment Protection Act 1985' and/or 'Plant Protection Product Regulations 1999' and any subsequent amendments and may differ from that indicated by any toxicological and/or other testing otherwise indicated in this 'Safety Data Sheet'. Hazard label for supply/use required.

Hazardous components which must be listed on the label:

Imidacloprid

Symbol(s)

Xi Irritant

R-phrase(s)

R36 Irritating to eyes.

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

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S-phrase(s)	
S 2	Keep out of the reach of children.
S13	Keep away from food, drink and animal feedingstuffs.
S35	This material and its container must be disposed of in a safe way.
S37	Wear suitable gloves.
S46	If swallowed, seek medical advice immediately and show this container or label.
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

Granule (GR) Imidacloprid 0,5%

Hazardous components

R-phrase(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	[%]	
Imidacloprid	138261-41-3 428-040-8	Xn; R22 N; R50/53	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	0.50	
White mineral oil	8042-47-5 232-455-8	Not classified	Asp. Tox. 1, H304	> 1.00 - < 10.00	
Silica, amorphe	7631-86-9 231-545-4	Not classified	Not classified	> 1.00	

Further information

Imidacloprid 138261-41-3 M-Factor	10 (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. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation

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Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact

Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with 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. If eye irritation or redness persists, see an ophthalmologist.

Ingestion

Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Nausea, Vomiting, Abdominal pain, Dizziness, Symptoms and hazards refer to effects observed after intake of significant amounts of the active ingredient.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment

Treat symptomatically.

Monitor: respiratory and cardiac functions.

In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.

There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Water spray

Carbon dioxide (CO2)

Foam

Sand

5.2 Special hazards arising from the substance or mixture

In the event of fire the following may be released: Carbon monoxide (CO)

5.3 Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire and/or explosion do not breathe fumes.

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

Further information

Contain the spread of the fire-fighting media.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

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6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled product or contaminated surfaces.

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.

Clean contaminated floors and objects thoroughly, observing environmental regulations.

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.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.

Ensure adequate ventilation.

Hygiene measures

Avoid contact with skin, eyes and clothing.

Keep working clothes separately.

Wash hands before breaks and immediately after handling the product.

Remove soiled clothing immediately and clean thoroughly before using again.

Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in original container.

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

Store in a place accessible by authorized persons only.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Suitable materials

HDPE (high density polyethylene)

7.3 Specific end uses

Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Imidacloprid	138261-41-3	0.7 mg/m3 (TWA)		OES BCS*
Silica, amorphe (Respirable dust.)	7631-86-9	2.4 mg/m3 (TWA)	12 2011	EH40 WEL
Silica, amorphe (Inhalable dust.)	7631-86-9	6 mg/m3 (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 No personal respiratory protective equipment normally required.

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 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 5 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.

If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully

remove and dispose of as advised by manufacturer.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form granular

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Odour weak, characteristic

pH ca. 8.8 at 10 % (23 °C) (deionized water)

grey

Water solubility at 20 °C

insoluble

9.2 Other information

Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

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Colour

Stable under normal conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

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) > 2,500 mg/kg

Acute inhalation toxicity During intended and foreseen applications, no respirable aerosol is

formed.

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

Skin irritation No skin irritation (rabbit)

Eye irritation Irritating to eyes. (rabbit)

Sensitisation Non-sensitizing. (guinea pig)

OECD Test Guideline 406, Buehler test

Non-sensitizing. (guinea pig)

OECD Test Guideline 406, Magnusson & Kligman test

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Assessment repeated dose toxicity

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

Assessment Mutagenicity

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

Assessment Carcinogenicity

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

Assessment Toxicity to Reproduction

Imidacloprid caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Imidacloprid is related to parental toxicity.

Assessment developmental toxicity

Imidacloprid caused developmental toxicity only at doses toxic to the dams. The developmental effects seen with Imidacloprid are related to maternal toxicity.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 (Rainbow trout (Oncorhynchus mykiss)) 211 mg/l

Exposure time: 96 h

The value mentioned relates to the active ingredient imidacloprid.

Toxicity to aquatic EC50 (Water flea (Daphnia magna)) 85 mg/l

invertebrates Exposure time: 48 h

The value mentioned relates to the active ingredient imidacloprid.

LC50 (Chironomus riparius (non-biting midge)) 0.0552 mg/l

Exposure time: 24 h

The value mentioned relates to the active ingredient imidacloprid.

Toxicity to aquatic plants EC50 (Desmodesmus subspicatus) > 10 mg/l

Growth rate; Exposure time: 72 h

The value mentioned relates to the active ingredient imidacloprid.

12.2 Persistence and degradability

Biodegradability Not applicable for this mixture.

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

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No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Empty remaining contents.

Do not use containers for other products.

Clean container with water.

Rinsed packaging may be acceptable for landfill, otherwise incineration will be required in accordance with local regulations.

Not completely emptied packagings should be disposed of as hazardous waste.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

SECTION 14: TRANSPORT INFORMATION

ADR/R	ID/A	۸DN
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14.1 UN number **3077**

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(IMIDACLOPRID MIXTURE)

14.3 Transport hazard class(es)914.4 Packing groupIII14.5 Environm. Hazardous MarkYESHazard no.90Tunnel CodeE

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 **3077**

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(IMIDACLOPRID MIXTURE)

14.3 Transport hazard class(es) 9
14.4 Packing group III
14.5 Marine pollutant YES

ΙΑΤΑ

14.1 UN number **3077**

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14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(IMIDACLOPRID MIXTURE)

14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environm. Hazardous Mark
YES

UK 'Carriage' Regulations

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14.1 UN number **3077**

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(IMIDACLOPRID MIXTURE)

14.3 Transport hazard class(es)914.4 Packing groupIII14.5 Environm. Hazardous MarkYESEmergency action code2Z

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.

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.

SECTION 16: OTHER INFORMATION

Text of R-phrases mentioned in Section 3
R22 Harmful if swallowed.

R50/53 Very toxic 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.

H304 May be fatal if swallowed and enters airways.

H400 Very toxic to aquatic life.

H410 Very toxic 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.

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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.