



FLINT

Version 2 / EU
102000007798

1/10

Revision Date: 09.04.2013
Print Date: 12.04.2013

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

1.1 Product identifier

Trade name FLINT
Product code (UVP) 05584493

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

Use Fungicide

1.3 Details of the supplier of the safety data sheet

Supplier Bayer CropScience AG
Alfred-Nobel-Straße 50
40789 Monheim am Rhein
Germany

Telefax +49(0)2173-38-7394
Responsible Department Product Safety and Specification Management
+49(0)2173-38-3409/3189 (during business hours only)
Email: BCS-SDS@bayer.com

1.4 Emergency telephone no.

Emergency telephone no. Global Incident Response Hotline (24h)
+1 (760) 476-3964 (Company 3E for Bayer CropScience)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Skin sensitization: Category 1

H317 May cause an allergic skin reaction.

Acute aquatic toxicity: Category 1

H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1

H410 Very toxic to aquatic life with long lasting effects.

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 Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Trifloxystrobin

**FLINT**Version 2 / EU
102000007798

2/10

Revision Date: 09.04.2013
Print Date: 12.04.2013Signal word:
Warning

Hazard statements

H317 May cause an allergic skin reaction.
 H410 Very toxic to aquatic life with long lasting effects.
 EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

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

Water dispersible granules (WG)
 Trifloxystrobin 500g/kg

Hazardous components

R-phrases 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	
Trifloxystrobin	141517-21-7	R43 N; R50/53	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	50,00
Dibutyl naphthalenesulfoni c acid, sodium salt	25417-20-3 246-960-6	Xn; R20/22 Xi; R36/38 R52/53	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	> 1,00 - < 25,00
Diatomaceous earth	61790-53-2	Not classified	Not classified	> 1,00

Further information

Trifloxystrobin	141517-21-7	M-Factor: 100 (acute)
-----------------	-------------	-----------------------



FLINT

Version 2 / EU
102000007798

3/10

Revision Date: 09.04.2013
Print Date: 12.04.2013

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. Place and transport victim in stable position (lying sideways).

Inhalation

Move to fresh air. Keep patient warm and at rest.

Skin contact

Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.

Eye contact

Remove contact lens and rinse eyes immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion

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

4.2 Most important symptoms and effects, both acute and delayed

No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment

Local treatment:

Initial treatment: symptomatic.

Treatment

Systemic treatment:

Initial treatment: symptomatic.

In the event of a mouthful or more being ingested, the following measures should be considered:

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.

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:

Hydrogen cyanide (hydrocyanic acid)



FLINT

Version 2 / EU
102000007798

4/10

Revision Date: 09.04.2013
Print Date: 12.04.2013

Hydrogen fluoride
Carbon monoxide (CO)
Nitrogen oxides (NOx)

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

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.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly, observing environmental regulations.
Sweep up or vacuum up spillage and collect in suitable container 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

Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.

Hygiene measures

Avoid contact with skin, eyes and clothing.
Keep working clothes separately.
Wash hands immediately after work, if necessary take a shower.
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 a place accessible by authorized persons only.

**FLINT**Version 2 / EU
102000007798

5/10

Revision Date: 09.04.2013
Print Date: 12.04.2013

Store in original container.

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

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
Trifloxystrobin	141517-21-7	2,7 mg/m ³ (TWA)		OES BCS*

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

8.2 Exposure controls**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 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 3 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.

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

Form water-dispersible granules

**FLINT**Version 2 / EU
102000007798

6/10

Revision Date: 09.04.2013
Print Date: 12.04.2013

Colour	light brown
Odour	weak, characteristic
pH	8,5 - 10,5 at 1 % (23 °C) (deionized water)
Water solubility	dispersible
Impact Sensitivity	not impact-sensitive

9.2 Other information

Further safety related physical-chemical data are not known.

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

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) > 2.000 mg/kg Test conducted with a similar formulation.
Acute dermal toxicity	LD50 (rat) > 2.000 mg/kg Test conducted with a similar formulation.
Skin irritation	Slight irritant effect - does not require labelling. (rabbit) Test conducted with a similar formulation.
Eye irritation	Slight irritant effect - does not require labelling. (rabbit) Test conducted with a similar formulation.
Sensitisation	Sensitising (guinea pig) OECD Test Guideline 406, Magnusson & Kligman test Test conducted with a similar formulation.

**FLINT**Version 2 / EU
102000007798

7/10

Revision Date: 09.04.2013
Print Date: 12.04.2013

Non-sensitizing. (guinea pig)
OECD Test Guideline 406, Buehler test
Test conducted with a similar formulation.

Assessment repeated dose toxicity

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

Assessment Mutagenicity

Trifloxystrobin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

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

Assessment Toxicity to Reproduction

Trifloxystrobin 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 Trifloxystrobin is related to parental toxicity.

Assessment developmental toxicity

Trifloxystrobin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Trifloxystrobin are related to maternal toxicity.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity to fish LC50 (Rainbow trout (*Oncorhynchus mykiss*)) 0,036 mg/l
Exposure time: 96 h

Toxicity to aquatic invertebrates EC50 (Water flea (*Daphnia magna*)) 0,01 mg/l
Exposure time: 48 h

Toxicity to aquatic plants EC50 (*Pseudokirchneriella subcapitata*) 0,15 mg/l
Growth rate; Exposure time: 72 h

12.2 Persistence and degradability

Biodegradability 0 %
Exposure time: 29 d
Not readily biodegradable.
The value mentioned relates to the active ingredient trifloxystrobin.

Stability in water no data available

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

**FLINT**Version 2 / EU
102000007798

8/10

Revision Date: 09.04.2013
Print Date: 12.04.2013

Additional ecological information
No further ecological information is available.

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.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

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

14.1 UN number	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TRIFLOXYSTROBIN)
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	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TRIFLOXYSTROBIN)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

IATA

14.1 UN number	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TRIFLOXYSTROBIN)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

14.6 Special precautions for user



FLINT

Version 2 / EU
102000007798

9/10

Revision Date: 09.04.2013
Print Date: 12.04.2013

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 for this substance.

SECTION 16: OTHER INFORMATION

Text of R-phrases mentioned in Section 3

R20/22	Harmful by inhalation and if swallowed.
R36/38	Irritating to eyes and skin.
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.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
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 information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 453/2010 amending Regulation (EU) No 1907/2006 (and any subsequent amendments). This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

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



FLINT

Version 2 / EU
102000007798

10/10

Revision Date: 09.04.2013

Print Date: 12.04.2013

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