

CHESS/PLENUM 50 WG

Version 8 - This version replaces all previous versions.

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier****Product name** : CHESS/PLENUM 50 WG**Design code** : A9364J**1.2 Relevant identified uses of the substance or mixture and uses advised against****Use** : Insecticide**1.3 Details of the supplier of the safety data sheet****Company** : Syngenta Crop Protection AG
Postfach
CH-4002 Basel
Switzerland**Telephone** : +41 61 323 11 11**Telefax** : +41 61 323 12 12**E-mail address** : sds.ch@syngenta.com**1.4 Emergency telephone number****Emergency tele-
phone number** : +44 1484 538444**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Classification according to Regulation (EU) 1272/2008

Carcinogenicity	Category 2	H351
Chronic aquatic toxicity	Category 1	H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

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

Xn, Harmful**R40: Limited evidence of a carcinogenic effect.**

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2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008

Hazard pictograms



Signal word	:	Warning	
Hazard statements	:	H351 H410	Suspected of causing cancer. Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	P102 P201 P280 P308 + P313 P391 P501	Keep out of reach of children. Obtain special instructions before use. Wear protective gloves/ protective clothing. IF exposed or concerned: Get medical advice/ attention. Collect spillage. Dispose of contents/ container to an approved waste disposal plant.
Supplemental information	:	EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Hazardous components which must be listed on the label:

- pymetrozine

Labelling: EU Directives 67/548/EEC or 1999/45/EC

Symbol(s)



Harmful

R-phrases(s)	:	R40	Limited evidence of a carcinogenic effect.
S-phrases(s)	:	S 2 S13 S20/21 S36/37	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. Wear suitable protective clothing and gloves.
Additional Labelling	:	To avoid risks to man and the environment, comply with the instructions for use.	

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Hazardous components which must be listed on the label:

- pymetrozine

2.3 Other hazards

May form flammable dust-air mixture.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration
pymetrozine	123312-89-0	Xn R40 R52/53	Carc.2; H351 Aquatic Chronic3; H412	50 % W/W
silica	91053-39-3 68855-54-9 61790-53-2 7631-86-9 293-303-4	-	-	5 - 10 % W/W
sodium dibu- tylnaphtha- lenesulphonate	25417-20-3 246-960-6	Xn R20/22 R36/38 R52/53	Acute Tox.4; H302 Acute Tox.4; H332 Skin Irrit.2; H315 Eye Irrit.2; H319 Aquatic Chronic3; H412	1 - 5 % W/W

Substances for which there are Community workplace exposure limits.

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice : Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.

Inhalation : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control centre immediately.

Skin contact : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.

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- Eye contact** : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms** : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Medical advice** : There is no specific antidote available.
Treat symptomatically.

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

Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
or
Water spray

Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.

5.3 Advice for firefighters

Wear full protective clothing and self-contained breathing apparatus.

Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8.
Avoid dust formation.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

Do not create a powder cloud by using a brush or compressed air.
Clean contaminated surface thoroughly.

If the product contaminates rivers and lakes or drains inform respective authorities.

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.
Refer to disposal considerations listed in section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

This material can become readily charged in most operations.

Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

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

Keep out of the reach of children.

Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

Registered Crop Protection products: For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
pymetrozine	0.8 mg/m ³	8 h TWA	SYNGENTA
silica	4 mg/m ³ 4 mg/m ³ 10 mg/m ³ 3,000 ppm 1.2 mg/m ³ (Respirable dust)	8 h TWA 8 h TWA 8 h TWA IDLH 8 h TWA	DFG SUVA ACGIH NIOSH UK HSE

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product.

8.2 Exposure controls

- Engineering measures** : Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.
The extent of these protection measures depends on the actual risks in use.
If airborne dust is generated, use local exhaust ventilation controls.
Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.
Where necessary, seek additional occupational hygiene advice.
- Protective measures** : The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.
Personal protective equipment should be certified to appropriate standards.
- Respiratory protection** : A particulate filter respirator may be necessary until effective technical measures are installed.
Protection provided by air-purifying respirators is limited.
Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

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- Hand protection** : Suitable material:Nitrile rubber
Break through time: > 480 min
Glove thickness: 0.5 mm
Chemical resistant gloves should be used.
Gloves should be certified to an appropriate standard.
Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure.
The breakthrough time of gloves varies according to the thickness, material and manufacturer.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Eye protection** : Eye protection is not usually required.
Follow any site specific eye protection policies.
- Skin and body protection** : Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material.
Wash with soap and water after removing protective clothing.
Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.)
Wear as appropriate:
Dust impervious protective suit

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- Physical state** : solid
Form : granules
Colour : grey beige to brown
Odour : weak
Odour Threshold : No data available
pH : 7 - 11 at 1 % w/v
Melting point/range : No data available
Boiling point/boiling range : No data available
Flash point : No data available
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Lower explosion limit : No data available
Upper explosion limit : No data available
Vapour pressure : No data available
Relative vapour density : No data available
Density : No data available
Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : > 140 °C
Thermal decomposition : No data available
Viscosity, dynamic : No data available
Viscosity, kinematic : No data available
Explosive properties : Not explosive
Oxidizing properties : not oxidizing

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9.2 Other information

Minimum ignition temperature	: 500 °C
Dust explosion class	: Forms flammable dust clouds.
Minimum ignition energy	: > 1 J
Bulk density	: 0.4 - 0.6 g/cm ³
Surface tension	: 63.9 - 64.0 mN/m at 20 °C
Burning number	: 3 at 20 °C : 5 at 100 °C

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

See section 10.3 "Possibility of hazardous reactions".

10.2 Chemical stability

The product is stable when used in normal conditions

10.3 Possibility of hazardous reactions

No hazardous reactions by normal handling and storage according to provisions.

10.4 Conditions to avoid

No decomposition if used as directed.

10.5 Incompatible materials

No substances are known which lead to the formation of hazardous substances or thermal reactions.

10.6 Hazardous decomposition products

Combustion or thermal decomposition will evolve toxic and irritant vapors.

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

Acute oral toxicity	: LD50 female Rat, > 5,000 mg/kg
Acute inhalation toxicity	: LC50 male and female Rat, > 3.09 mg/l, 4 h The toxicological data has been taken from products of similar composition.
Acute dermal toxicity	: LD50 male and female Rat, > 5,000 mg/kg
Skin corrosion/irritation	: Rabbit: Practically non-irritating.
Serious eye damage/eye irritation	: Rabbit: Mildly irritating

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- Respiratory or skin sensitisation** : Buehler Test Guinea pig: Not a skin sensitizer in animal tests.
- Germ cell mutagenicity
pymetrozine : Did not show mutagenic or teratogenic effects in animal experiments.
- Carcinogenicity
pymetrozine : Increased levels of liver tumours were observed at high doses in rats and mice. The relevance of these findings to humans is questionable.
- Teratogenicity
pymetrozine : No information available.
- Reproductive toxicity
pymetrozine : Did not show reproductive toxicity effects in animal experiments.
- STOT - repeated exposure
pymetrozine : This information is not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

- Toxicity to fish** : LC50 *Oncorhynchus mykiss* (rainbow trout), > 100 mg/l , 96 h
Based on test results obtained with similar product.
- Toxicity to aquatic invertebrates** : EC50 *Daphnia magna* (Water flea), > 100 mg/l , 48 h
Based on test results obtained with similar product.
- Toxicity to aquatic plants** : ErC50 *Pseudokirchneriella subcapitata* (green algae), > 100 mg/l , 72 h
Based on test results obtained with similar product.
- : EbC50 *Pseudokirchneriella subcapitata* (green algae), > 100 mg/l , 72 h
Based on test results obtained with similar product.

12.2 Persistence and degradability

Biodegradability

- pymetrozine : Not readily biodegradable.
- Stability in water
pymetrozine : Degradation half life: 4.8 - 6.3 d
Not persistent in water.
- Stability in soil
pymetrozine : Degradation half life: 7.9 - 30 d
Not persistent in soil.

12.3 Bioaccumulative potential

- pymetrozine : Pymetrozine has low potential for bioaccumulation.

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12.4 Mobility in soil

pymetrozine : Pymetrozine has slight mobility in soil.

12.5 Results of PBT and vPvB assessment

pymetrozine : 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).

12.6 Other adverse effects

Other information : Classification of the product is based on the summation of the concentrations of classified components.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Product : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

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SECTION 14: TRANSPORT INFORMATION**Land transport (ADR/RID)**

14.1 UN number:	UN 3077
14.2 UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PYMETROZINE)
14.3 Transport hazard class(es):	9
14.4 Packing group:	III
Labels:	9
14.5 Environmental hazards :	Environmentally hazardous
Tunnel restriction code:	E

Sea transport(IMDG)

14.1 UN number:	UN 3077
14.2 UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PYMETROZINE)
14.3 Transport hazard class(es):	9
14.4 Packing group:	III
Labels:	9
14.5 Environmental hazards :	Marine pollutant

Air transport (IATA-DGR)

14.1 UN number:	UN 3077
14.2 UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PYMETROZINE)
14.3 Transport hazard class(es):	9
14.4 Packing group:	III
Labels:	9

14.6 Special precautions for user

none

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

Not applicable

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

GHS-Labeling

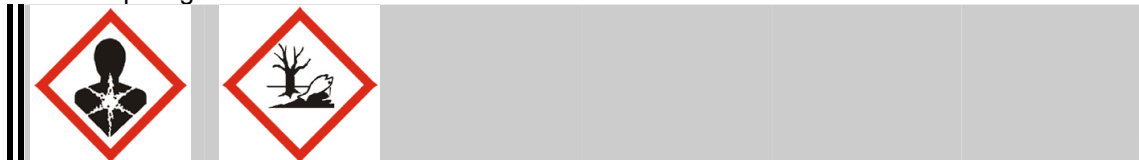
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Hazard pictograms



Signal word	:	Warning
Hazard statements	:	H351 Suspected of causing cancer. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	P102 Keep out of reach of children. P201 Obtain special instructions before use. P280 Wear protective gloves/ protective clothing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P391 Collect spillage. P501 Dispose of contents/ container to an approved waste disposal plant.
Remarks	:	Classified using all GHS hazard classes and categories. Where the GHS contains options, the most conservative option has been chosen. Regional or national implementations of GHS may not implement all hazard classes and categories.

Hazardous components which must be listed on the label:

- pymetrozine

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: OTHER INFORMATION

Further information

Full text of R-phrases referred to under sections 2 and 3:

R20/22	Harmful by inhalation and if swallowed.
R36/38	Irritating to eyes and skin.
R40	Limited evidence of a carcinogenic effect.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

ADR:	European Agreement Concerning the International Carriage of Dangerous Goods by Road	RID:	Regulations concerning the International Carriage of Dangerous Goods by Rail
IMDG:	International Maritime Code for Dangerous Goods	IATA-DGR:	International Air Transport Association Dangerous Goods Regulations
LC50:	Lethal concentration, 50%	LD50:	Lethal dose, 50%
EC50:	Effective dose, 50%	GHS:	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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