

1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product identifier

Trade name

Prostar

1.2 Relevant identified uses of the mixture and uses advised against

1.2.1 Relevant identified uses

An emulsifiable concentrate fungicide containing 250 g/litre prothioconazole for the control of certain diseases in cereals and oilseed rape. Professional use only.

1.2.2 Uses advised against

Do not use for any other purpose.

1.3 Details of the supplier of the safety data sheet

Albaugh Europe Sàrl
World Trade Center Lausanne
Avenue Gratta-Paille 2
1018 Lausanne
Switzerland

Telephone: +41 21 799 9130
Fax: +41 21 799 9139
Email: sds@albaugh.eu
Web: www.albaugh.eu

1.4 Emergency telephone number

For advice on medical emergencies, fires or major spills: +44 (0) 1235 239 670

Available: 24 h
Time Zone: GMT
Language(s) of phone service: All EU languages

National Emergency Telephone Numbers

Public Poisons Information Line: 01 809 2166

Available: 8 am - 10 pm, 7 days a week
Time Zone: GMT
Language(s) of phone service: English

Healthcare professionals: 01 837 9964 or 01 809 2566

Available: 24h
Time Zone: GMT
Language(s) of phone service: English

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Signal word	Hazard class and category	Pictograms	Hazard statement
Warning	Eye Irrit. 2	GHS07	H319 Causes serious eye irritation.
Warning	STOT SE3	GHS07	H335 May cause respiratory irritation.
Warning	Aquatic Acute 1	GHS09	H400 Very toxic to aquatic life
	Aquatic Chronic 1		H410 Very toxic to aquatic life with long lasting effects.

Additional information

For abbreviations, refer to Section 16.

2.2 Label elements

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

Hazard pictograms:



GHS 07



GHS 09

Signal Word:

Warning

Hazard Statements:

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

General: P102: Keep out of reach of children.

Prevention: P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P311: IF exposed or concerned: Get medical advice/attention.

Storage: -

Disposal: P501: Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste

Supplemental information:

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

EUH208: Contains 2-[2-(1-chlorocyclopropyl)-2-hydroxy-3-phenylpropyl]-2,4-dihydro-3H-1,2,4 triazole-3-thione.

May produce an allergic reaction

EUH066: Repeated exposure may cause skin dryness or cracking.

SP 1: Do not contaminate water with the product or its container. Do not clean application equipment near surface water.

Avoid contamination via drains from farmyards and roads.

Spe 3: To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.

2.3 Other hazards

None known

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Description of the mixture:

Mixture of prothioconazole, N-N-Dimethyldecanamide and co-formulants.

Chemical Name	CAS-No.	EC-No.	Index No.	Concentration (W/W)	CLP (Reg. 1272/2008) Classification	M-Factor
Prothioconazole	178928-70-6	605-841-2	-	25 %	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	10

Chemical Name	CAS-No.	EC-No.	Index No.	Concentration (W/W)	CLP (Reg. 1272/2008) Classification	M-Factor
N,N-Dimethyldecanamide	14433-76-2	238-405-1	-	> 20 %	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 3, H412	
Other ingredients				to 100%	not classified	

Additional information

For full text of H-phrases and abbreviations, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General notes:

If symptoms occur after exposure to this product, seek medical attention immediately and show the product label or this SDS. Remove to fresh air and keep at rest. Do not allow smoking or eating. Take off all contaminated clothing and footwear.

Following inhalation:

Remove to fresh air and keep at rest in half-upright position. Seek medical attention immediately.

Following skin contact:

Remove all contaminated clothing. Wash skin with soap and rinse with plenty of water, if available with polyethylene glycol 400, subsequently rinse with water. Seek medical attention if irritation arises. Wash clothes before re-use.

Following eye contact:

Immediately rinse with water. Holding eyes open, continue rinsing for 15 minutes at least. Remove contact lenses, if present, after the first 5 minutes. Seek medical attention immediately.

Following ingestion:

If swallowed, DO NOT INDUCE VOMITING: seek medical advice immediately and show this container or label. Remove any residues from mouth and rinse it with plenty of water. Offer the casualty 1 or 2 glasses of water to drink. Never give anything by mouth to an unconscious person.

Self-protection of first aider

Personal protective equipment for first aid responders is recommended according to potential for exposure (refer to Section 8).

4.2 Most important symptoms and effects, both acute and delayed

The symptoms and the effects indicated in this section refer to an accidental exposure scenario.

Following inhalation:

Possible nasal irritation and discharge. No delayed effects expected.

Following skin contact:

Possible irritation, redness and dryness. No delayed effects expected.

Following eye contact:

Possible serious irritation and redness. May cause serious and potentially irreversible eye damage.

Following ingestion:

Possible mild gastrointestinal effects. No delayed effects expected.

4.3 Indication of immediate medical attention and special treatment needed

No need to provide any special means/medicinal products for immediate treatment at the workplace.

Notes for the doctor:

No specific antidote. Treat symptomatically (decontamination, vital functions). Call a Poison Centre immediately for treatment advice. In case of significant ingestion gastric lavage should be considered only within the first 2 hours (with proper laryngeal control). Before emptying the stomach, assess the potential danger arising from lung aspiration against the product toxicity. The application of activated charcoal and sodium sulphate is always advisable. Report to Albaugh Europe Sàrl any unusual symptoms occurring after exposure by any route.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Carbon dioxide, water spray, alcohol-resistant foam, dry chemical for small fires, alcohol-resistant foam or water spray for large fires.

Unsuitable extinguishing media:

Solid water jet.

5.2 Special hazards arising from the mixture

Hazardous combustion products

Evolves toxic and corrosive fumes in fire including carbon oxides, nitrogen and sulphur oxides, hydrogen cyanide and hydrogen chloride.

5.3 Advice for fire-fighters

Clothing conforming to EN469 should be sufficient to deal with fires involving the mixture. However, a Self-Contained Breathing Apparatus (SCBA) may be required if there is a potential for exposure to combustion fumes.

5.4 Additional information

Provide storage and work areas with suitable fire extinguishers.

Call the Fire Brigade at once (112) to deal with all fires involving pesticides unless the fire is small and immediately controllable.

Spray unopened containers with a mist spray to keep cool. If without risk, remove intact containers from exposure to fire. Contain fire-fighting water, bunding if necessary with sand or earth. Do not allow contamination of public drains or surface or ground waters. Dispose of fire debris and contaminated water as advised by the national relevant legislation.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment: Remove immediately any contaminated clothing. Wear prescribed personal protective equipment to prevent contact with eyes and skin. A Self-Contained Breathing Apparatus (SCBA) may be required if there is an elevated risk for exposure.

Emergency procedures: Call the emergency services if the release is not immediately controllable. If the release is localized and immediately controllable, provide sufficient ventilation and control the release at its source.

6.1.2 For emergency responders

Clothing conforming to EN469.

6.2 Environmental precautions

Use appropriate containment to avoid environmental contamination. Control the release at its source. Contain the spill to prevent it from spreading, contaminating soil or entering sewage and drainage systems or any body of water. Inform the Local Authorities and/or the local water company if the release enters drains and the Irish Environmental Protection Agency if it enters surface or ground waters.

6.3 Methods and material for containment and cleaning up

For containment

Clean up spills immediately and place in a compatible disposal container. Contain spill by diking with earth, sand or non-combustible absorbent material and place into a compatible marked disposal container.

For cleaning up

Scrub area with a hard water detergent. Soak up wash liquid with additional absorbent material and place into a compatible marked disposal container. Seal container and arrange for disposal.

Other information

Not Applicable

6.4 Reference to other sections

Refer to Section 8 for personal protective equipment and to Section 13 for disposal instructions.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide suitable ventilation in the areas where the product is stored and used. Contaminated work clothing should not be allowed out of the workplace. Avoid all contact by mouth, with eyes and skin. Wear personal protective equipment as specified in Section 8. When using, do not eat, drink or smoke. Remove contaminated clothing and protective equipment before meals and after work. Wash hands and exposed skin before meals and after work. Wash all protective clothing thoroughly after use, especially the insides of gloves.

7.2 Conditions for safe storage, including any incompatibilities

The mixture is stable under normal ambient conditions. Keep in original container, in a dry, cool and safe place. Store in a locked, suitable store. Keep away from any source of ignition. Keep out of the reach of children and unauthorised personnel. Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s)

The product is for professional use as directed by the product label, every other use is hazardous.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control Parameters

Occupational Exposure limit values

None available.

Information on monitoring procedures

None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Engineering controls and appropriate work processes must be used to eliminate or reduce worker and environmental exposure in the areas where the substance is handled, transported, loaded, unloaded, stored and used. These measures must be adequate for the extent of the actual risk. Provide adequate local exhaust ventilation. Use specialized transfer systems if available. Arrange for eye wash facility.

8.2.2 Personal protection equipment

Eye and face protection:

Avoid contact with eyes. If there is a significant potential for contact, wear suitable eye and face protection (EN 166).

Skin protection:

Hand protection: Wear suitable protective gloves against chemicals (EN 374 part 1, 2, 3). Nitrile rubber min. 0.5mm thick and 300mm long gloves are the ones proven to be the most suitable according to tests on pesticide products.

Wash the gloves thoroughly after each use, especially the insides. Replace gloves if damaged and before exceeding the breakthrough time.

Body protection: Avoid contact with skin. If there is a significant potential for contact, wear suitable waterproof long-sleeved coveralls (ISO 13982-1, Type 5, EN 13034, Type 6) under a chemical protection suit with chemical-resistant boots. Change clothes if these are contaminated with the product. Wash after handling, especially hands and parts of the body which may have been exposed, if necessary take a shower. Launder clothes separately professionally, frequently and before reuse.

Other skin protection: None specified.

Respiratory protection:

No special requirement when used as recommended. If a risk assessment shows that engineering controls do not provide adequate respiratory protection to exposure to spray particles or vapour, wear particle filtering half mask (EN 149) or half mask connected to particle filter (EN 140 + 143).

8.2.3 Environmental exposure controls

Implement all applicable local and community environmental protection legislation. Refer to Section 15. Use appropriate containment to avoid environmental contamination. Do not empty into drains. Do not contaminate water with the product or used container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads. Refer to Section 12 and 13.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

All the data contained in this section are derived from actual test data on the mixture unless otherwise stated.

a) <i>Appearance:</i>	Clear to slightly turbid, liquid
<i>Colour:</i>	Tan
b) <i>Odour:</i>	Aromatic
c) <i>Odour threshold:</i>	Not determined – not required under all applicable pesticide legislation.
d) <i>pH:</i>	5.0 - 6.0 at 1 % (23 °C) (deionized water)
e) <i>Melting point/freezing point:</i>	Not applicable – the mixture is a liquid at ambient temperature and must be protected from frost
f) <i>Initial boiling point and boiling range:</i>	Not determined
g) <i>Flash point:</i>	>100 °C
h) <i>Evaporation rate:</i>	Not available - not required under all applicable pesticide legislation.
i) <i>Flammability (solid, gas):</i>	Not applicable (liquid)
j) <i>Upper/lower flammability or explosive limits:</i>	Not determined
k) <i>Vapour pressure:</i>	Not determined
l) <i>Vapour density:</i>	Not applicable - not required under all applicable pesticide legislation.
m) <i>Relative density:</i>	1.00 g/cm ³ at 20 °C
n) <i>Solubility(ies)</i>	
<i>Solubility (water):</i>	Dispersible
o) <i>Partition coefficient: n-octanol/water:</i>	log Pow = 3.82 (20 °C) (Prothioconazole) log Pow = 2.46 (20 °C) (N,N-Dimethyldecanamide)
p) <i>Auto-ignition temperature:</i>	Not determined
<i>Minimum Ignition Temperature:</i>	Not determined
<i>Minimum Ignition Energy:</i>	Not determined
q) <i>Decomposition temperature:</i>	Not determined
r) <i>Viscosity:</i>	Not determined
s) <i>Explosive properties:</i>	Explosion hazard: not explosive.
t) <i>Oxidising properties:</i>	Not an oxidising agent.

9.2 Other information

<i>Surface tension:</i>	29.9 mN/m (20 °C)
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10. STABILITY AND REACTIVITY

10.1 Reactivity

Non-reactive when stored in original container under normal conditions of storage and use.

10.2 Chemical stability

Stable when stored in original container under normal conditions of storage and use.

10.3 Possibility of hazardous reactions

No hazardous reactions when stored in original container under normal conditions of storage and use.

10.4 Conditions to avoid

Do not store in proximity of sources of ignition, extreme temperatures and direct sunlight.

10.5 Incompatible materials

None

10.6 Hazardous decomposition products

During decomposition evolves toxic fumes including hydrogen fluoride, nitrogen and sulphur oxides, hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.2 Mixtures

All the data contained in this section are derived from actual test data on the mixture unless otherwise stated.

- a) **Acute toxicity:**
 - LD₅₀ oral, rat:** >2500 mg/kg bw
 - LD₅₀ dermal, rat:** >4000 mg/kg bw
 - LC₅₀ inhalation, rat (4h):** >5 mg/l
- b) **Skin corrosion/irritation:** Not irritant. Not classified as a skin irritant under Regulation (EC) 1272/2008.
- c) **Serious eye damage/irritation:** Irritant. Classified as Eye Irritant Category 2 under Regulation (EC) 1272/2008.
- d) **Respiratory or skin sensitization:** Irritant to respiratory system. Classified as Specific Target Organ Toxicity – Single Exposure category 3 under Regulation (EC) 1272/2008.
- e) **Germ cell mutagenicity:** Not classified as mutagenic on the basis of mixture component information
- f) **Carcinogenicity:** Not classified as carcinogenic on the basis of mixture component information
- g) **Reproductive toxicity:** Not classified as a reproductive toxicant on the basis of mixture component information
- h) **STOT – single exposure:** Classified as specific target organ toxicant, single exposure, category 3 with potential respiratory tract irritation.
- i) **STOT – repeated exposure:** Not classified as hazardous for repeated dose toxicity on the basis of mixture component information
- j) **Aspiration hazard:** Not classified as hazardous by aspiration on the basis of mixture component information.

Likely routes of exposure and related long and short term symptoms and health effects:

Inhalation: There is a low risk of exposure by inhalation.

Short-term symptoms and effects:

Possible nasal irritation and discharge.

Long-term symptoms and effects:

No evidence of long-term effects after prolonged or repeated exposure.

Eye contact: There is a risk of exposure by eye contact.

Short-term symptoms and effects:

Possible serious irritation and redness.

Long-term symptoms and effects:

May cause serious and potentially irreversible eye damage after prolonged or repeated exposure.

Skin contact: There is a risk of exposure by skin contact.

Short-term symptoms and effects:

Possible irritation, redness and dryness.

Long-term symptoms and effects:

No evidence of long-term effects after prolonged or repeated exposure.

Ingestion: There is a very low risk of accidental exposure by ingestion.

Short-term symptoms and effects:

Possible mild gastrointestinal effects.

Long-term symptoms and effects:

No evidence of long-term effects after prolonged or repeated exposure.

12. ECOLOGICAL INFORMATION

All the data contained in this section are derived from actual test data on the mixture unless otherwise stated.

12.1 Toxicity

Acute Toxicity

- LC₅₀ fish, *Oncorhynchus mykiss* (96h):** 4.02 mg/l
- EC₅₀ aquatic invertebrates, *Daphnia magna* (48h):** 2.9 mg/l
- IC₅₀ aquatic plants, *Raphidocelis subcapitata* (72h):** 12.7 mg/l
- EC₅₀ aquatic plants, *Skeletonema costatum* (72h):** 0.046 mg/l (based on data on the active substance)

12.2 Persistence and degradability: Not rapidly biodegradable (based on data on the active substance)

12.3 Bioaccumulative potential: Does not bioaccumulate (based on data on the active substance)

12.4 Mobility in soil:

Slightly mobile in soils (based on data on the active substance)

12.5 Results of PBT and vPvB assessment:

Not considered to be persistent, bioaccumulative and toxic (PBT).
Not considered to be very persistent and very bioaccumulative (vPvB).
(based on data on the active substance)

12.6 Other adverse effects:

Not determined.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal of waste product, contaminated packaging materials and any excess diluted spray should be in accordance with the relevant Waste Management Acts and Regulations 1996-2008 and any other applicable local or national legislation. Consult Farm Plastic Recycling Ltd. website for more information on recovery of farm plastic waste in Ireland.

For the handling and management of accidental release, follow the information given under Section 6 and 7.

14. TRANSPORT INFORMATION

14.1 UN number

UN 3082

14.2 UN Proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains prothioconazole)

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

Land transport ADR/RID - Environmentally Hazardous: Yes
Maritime transport IMDG - Marine pollutant: Yes

Note : When transported in packages of 5 litres and less (UN 3082) these goods are exempt from the main requirements of the transport regulations by virtue of Special Provision 375 of the ADR regulations 2015 for transport by road, Section 2.10.2.7 of the IMDG code 37-14 for transport by sea, and Special Provision A197 of the IATA 56th Edition regulations for transport by air.

14.6 Special Precautions for User

Land transport ADR/RID - Tunnel restriction code: -

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

No transport in bulk according to the IBC Code.

15. REGULATORY INFORMATION

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

EU Regulations

REGULATION (EC) No 1107/2009 of The European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC.

REGULATION (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

REGULATION (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

COMMISSION REGULATION (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

National Regulations/legislation:

Statutory Instrument No. 155 of 2012

National Action Plan for the sustainable use of pesticides

Safety, Health and Welfare Act 2005 (No. 10 of 2005)

Chemicals Acts 2008-2010 and the Guide

15.2 Chemical Safety Assessment

No Chemical Safety Assessment under Regulation (EC) 1907/2006 is required and has not been carried out.

16. OTHER INFORMATION

a) Indication of changes:

The numbering system identifying new versions and/or revisions of this SDS is incremental. An increment by an integer number identifies the issue of a new version requiring provision of updates according to Article 31(9) of REACH, while an increment by a decimal identifies minor changes such as typographical errors, text improvements and/or formatting.

Revisions indicated by a decimal point do not affect the risk management measures or information on hazards, do not refer to restrictions imposed and/or to authorisations granted or refused.

The paragraphs where changes have been made are indicated by the symbol '!' in the margin.

Differences between this and the previous version: This is the first version of this SDS.

b) Abbreviations and acronyms:

Skin Irrit. 2: Skin Irritation, hazard category 2

Eye Irrit. 2: Eye irritation, hazard category 2

Aquatic Acute 1: Hazardous to the aquatic environment, Acute hazard category 1

Aquatic Chronic 1: Hazardous to the aquatic environment, Chronic hazard category 1

Aquatic Chronic 3: Hazardous to the aquatic environment, Chronic hazard category 3

STOT SE3: Specific Target Organ Toxicity – Single Exposure category 3

c) Key literature references and sources for data:

Information in this SDS is based on data provided by the supplier.

ECHA Guidance on the compilation of safety data sheets

ECHA Guidance on the application of the CLP criteria

Review Report for the Active Substance prothioconazole – SANCO/1406/2001 – final, 18 September 2002.

EFSA scientific report (2007) 106, 1-98 'Conclusion regarding the peer review of the pesticide risk assessment of the active substance prothioconazole'.

d) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Eye Irrit. 2 – H319	On basis of study data
STOT SE 3 – H335	On basis of study data
Aquatic Acute 1 – H400 Aquatic Chronic 1 – H410	On basis of study data

e) Relevant H-statements and precautionary statements not written out in full under Sections 2 to 15:

H315: Causes skin irritation.

H412: Harmful to aquatic life with long lasting effects.

f) Training advice:

General occupational hygiene training recommended.

g) Further information:

The information and recommendations in this publication are, to the best of our knowledge, information and belief, accurate at the date of publication. Nothing herein is to be construed as a warranty, expressed or implied. In all cases it is the responsibility of the user to determine the applicability of such information or the suitability of any products for their own particular purpose.

This Material Safety Data Sheet was compiled by Albaugh Europe Sàrl (sds@albaugh.eu) in compliance with Regulation (EC) 1907/2006 as amended by 2015/830.