MAPP 14576
Contains 800 grams per litre prosulfocarb and 10 grams per litre clodinafop-propargyl as an emulsifiable concentrate formulation.
For the control of annual grass weeds and annual broad-leaved weeds in Winter Wheat.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

SAFETY PRECAUTIONS

Operator protection
Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate or contaminated surfaces.
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) during application.
However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.
WASH CONCENTRATE from skin or eyes immediately.
WASH HANDS AND EXPOSED SKIN before eating and after work.

Environmental protection
WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

Environmental protection
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.
To protect aquatic organisms respect a buffer zone to surface water bodies. Refer to section on LERAP for buffer zone width. DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, or within 1 m from the top of a ditch which is dry at the time of application.
DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1 m of the top of the bank of a static or flowing water body. Aim spray away from water.

Storage and disposal
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.
PROTECT FROM FROST
SHAKE WELL BEFORE USE

This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) Scheme. Before each spraying operation from a horizontal boom sprayer a LERAP must be carried out in accordance with CRD’s published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years.

Storage and disposal
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

Approval Holder
Syngenta Crop Protection UK Limited
CPC 4, Capital Park, Fulbourn,
Cambridge CB21 5XE
Tel: Cambridge (01223) 883400

Marketing Company
BASF plc
PO Box 4, Earl Road, Cheadle Hulme,
Cheadle Hulme, Cheshire SK8 6QG
Tel: 0161 485 6222
Emergency Information:
(24 hours freephone):
0049 180 2273112
Technical Enquiries: 0845 602 2553 (office hours)

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IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL HERBICIDE

<table>
<thead>
<tr>
<th>Crops</th>
<th>Maximum individual dose (litres/product/ha)</th>
<th>Maximum number of treatments</th>
<th>Latest time of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat (winter)</td>
<td>3 litres</td>
<td>One per crop</td>
<td>Before five tillers detectable stage (GS 25)</td>
</tr>
</tbody>
</table>

Other Specific Restrictions:
To avoid the build up of resistance do not apply products containing an ACCase inhibitor herbicide more than twice to any crop. In addition, do not use this product in mixture or sequence with any other product containing clodinafop-propargyl.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.
DIRECTIONS FOR USE

IMPORTANT: this information is approved as part of the Product Label. All instructions within this section must be carefully read in order to obtain safe and successful use of this product.

RESTRICTIONS
Do not use on barley or oats
Do not spray crops undersown with grass mixtures
Do not apply to crops under stress or to crops suffering from waterlogging, pest attack, disease, frost, or the effects of high diurnal temperature changes.
Do not apply if heavy rainfall is expected immediately after application
Do not apply to ‘soft’ crops that have not been frost hardened if significant frosts are expected immediately after application.
Transient discolouration can occur especially on spray overlaps, although crops fully recover.
Avoid the use of hormone-containing herbicides in mixture or sequence with AUXILIARY.
When AUXILIARY is applied first, leave 7 days before applying hormone herbicides. If mecoprop-p or 2,4-DB containing products are applied first, leave 14 days before AUXILIARY is applied. If MCPA or 2,4-D containing products are applied first, leave 21 days before AUXILIARY is applied.
The cereal seed must be covered by 3cm of soil and for best results apply to a firm, moist seedbed free of clods.

GRASSWEEDS CONTROLLED

<table>
<thead>
<tr>
<th>Susceptible</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wild Oats</td>
<td>Up to 5 tillers</td>
</tr>
<tr>
<td>Italian Ryegrass</td>
<td>Up to 1 tiller</td>
</tr>
</tbody>
</table>

AUXILIARY can contribute to the control of Blackgrass as part of a herbicide resistance management strategy, involving mixtures and sequences with herbicides of alternative modes of action.

BROAD-LEAVED WEEDS CONTROLLED

<table>
<thead>
<tr>
<th>Susceptible</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ivy leaved speedwell</td>
<td>Up to 4 true leaves</td>
</tr>
<tr>
<td>Chickweed</td>
<td>Up to 4 true leaves</td>
</tr>
<tr>
<td>Cranesbill</td>
<td>Pre-emergence (supported by limited evidence)</td>
</tr>
</tbody>
</table>

Weed Resistance
This product contains clodinafop-propargyl which is an ACCase inhibitor, also classified by the Herbicide Resistance Action Committee as 'Group A'.

AUXILIARY should only be used for control of herbicide resistant strains of annual grasses as part of an appropriate management strategy, including cultural control and mixtures / sequences with herbicides of alternative modes of action.

Applying a second product containing an ACCase inhibitor to a crop will increase the risk of resistance development; only use a second ACCase inhibitor to control different weeds at a different timing.
Strains of some annual grasses (e.g. black-grass, wild-oats and Italian rye-grass) have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor, crop adviser or product manufacturer.

CROP SPECIFIC INFORMATION

Timing

AUXILIARY may be used post-emergence of the crop up to five tillers detectable stage (GS 25).

Rates of Use

3 litres of product per hectare in mixture with an approved adjuvant.
One application per crop.
(See Use of Additives section) or in certain mixtures (see Tank Mix Recommendations).

FOLLOWING CROPS

In the case of crop failure, winter wheat and winter barley may be sown after an interval of three weeks.
The following crops may be sown in the spring after winter cereal crop failure

<table>
<thead>
<tr>
<th>Without ploughing</th>
<th>With ploughing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunflowers</td>
<td>Carrots</td>
</tr>
<tr>
<td>Maize</td>
<td>Lettuce</td>
</tr>
<tr>
<td>Flax</td>
<td>Onions</td>
</tr>
<tr>
<td>Spring oats</td>
<td>Sugar beets</td>
</tr>
<tr>
<td>Spring barley</td>
<td>Potatoes</td>
</tr>
<tr>
<td>Spring wheat</td>
<td>Field beans</td>
</tr>
<tr>
<td>Spring peas</td>
<td>Broad beans</td>
</tr>
<tr>
<td>Spring oilseed rape</td>
<td></td>
</tr>
<tr>
<td>Soya beans</td>
<td></td>
</tr>
</tbody>
</table>

MIXING AND SPRAYING

MIXING

Fill the spray tank with half the required volume of clean water and start agitation.
Add the required amount of AUXILIARY and continue agitation whilst adding the rest of the water. Agitate the mixture thoroughly before use and continue agitation during spraying. Add adjuvant to the spray tank at mixing.

SPRAYING

Apply AUXILIARY in a water volume of 100 - 400 litres per hectare.
Apply AUXILIARY using a conventional fan nozzle producing a medium spray quality as defined by the British Crop Protection Council. A spray pressure of 2.0 – 3.0 bars is recommended.

COMPATIBILITY

Use of additives
The maximum dose rate of AUXILIARY is 3 litres per hectare and AUXILIARY must be used in mixture with a suitable additive.
AUXILIARY must always be applied with an authorised adjuvant from the methylated seed oil or mineral oil classes. Use with approved methylated seed oils is preferred. Always use adjuvants at their recommended rates.
The following does not form part of the product label under the Plant Protection Products Regulations 2005

With many products there is a general risk of resistance developing to the active ingredients. For this reason a change in activity cannot be ruled out. It is generally impossible to predict with certainty how resistance may develop because there are so many crop and use connected ways of influencing this. We therefore have to exclude liability for damage or loss attributable to any such resistance that may develop. To help minimise any loss in activity the BASF recommended rate should in all events be adhered to.

Numerous, particularly regional or regionally attributable, factors can influence the activity of the product. Examples include weather and soil conditions, crop plant varieties, crop rotation, treatment times, application amounts, admixture with other products, appearance of organisms resistant to active ingredients and spraying techniques. Under particular conditions a change in activity or damage to plants cannot be ruled out. The manufacturer or supplier is therefore unable to accept any liability in such circumstances. All goods supplied by us are of high grade and we believe them to be suitable, but as we cannot exercise control over their mixing or use or the weather conditions during and after application, which may affect the performance of the material, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us for any damage or injury whatsoever arising from their storage, handling, application or use; but nothing should be deemed to exclude or restrict any liability upon us which cannot be excluded or restricted under the provisions of the Unfair Contract Terms Act 1977 or any similar applicable law.
Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

AUXILIARY

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

Relevant identified uses: crop protection product, herbicide

1.3. Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen GERMANY

Contact address:
BASF plc
PO Box 4, Earl Road, Cheadle Hulme, Cheadle, Cheshire
SK8 6QG, UNITED KINGDOM

Telephone: +44 161 485-6222
E-mail address: product-safety-north@basf.com

1.4. Emergency telephone number

International emergency number: Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Asp. Tox. 1
Eye Dam./Irrit. 2
Aquatic Acute 1
Aquatic Chronic 1

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Harmful: may cause lung damage if swallowed.

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

Globally Harmonized System, EU (GHS)

Pictogram:

Signal Word: Danger
Hazard Statement:
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
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.
EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary Statement:
P102 Keep out of reach of children.

Precautionary Statements (Prevention):
P280 Wear protective gloves/clothing/eye protection.

Precautionary Statements (Response):
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P391 Collect spillage.

Precautionary Statements (Disposal):
P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

Labeling of special preparations (GHS):
May produce an allergic reaction. Contains: PROSULFOCARB, CLODINAFOP-PROPARGYL, CLOQUINTOCET-MEXYL

According to Regulation (EC) No 1272/2008 [CLP]
Hazard determining component(s) for labelling: SOLVENT NAPHTHA

According to Directive 67/548/EEC or 1999/45/EC
Classification/labelling in accordance with UK regulations.

Hazard symbol(s)
Xn Harmful.
N Dangerous for the environment.

R-phrase(s)
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.

S-phrase(s)
S2 Keep out of the reach of children.
S13 Keep away from food, drink and animal feeding stuffs.
S20/21 When using do not eat, drink or smoke.
S35 This material and its container must be disposed of in a safe way.
S57 Use appropriate container to avoid environmental contamination.
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Hazard determining component(s) for labelling: SOLVENT NAPHTHA
The product contains: PROSULFOCARB, CLODINAFOP-PROPARGYL, CLOQUINTOCET-MEXYL
May produce an allergic reaction.

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

See section 12 – Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.
3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

crop protection product, herbicide, Emulsifiable concentrate (EC)

Hazardous ingredients (GHS)
according to Regulation (EC) No. 1272/2008

S-benzyl N,N-dipropylthiocarbamate; prosulfocarb
Content (W/W): 77%  Acute Tox. 4 (oral)
CAS Number: 52888-80-9  Skin Sens. 1
EC-Number: 401-730-6  Aquatic Chronic 2
INDEX-Number: 006-072-00-X  H302, H317, H411

clodinafop-propargyl (ISO)
Content (W/W): 0.96%  Acute Tox. 4 (oral)
CAS Number: 105512-06-9  Skin Sens. 1
STOT RE 2
Aquatic Acute 1
Aquatic Chronic 1
H302, H317, H400, H410, H373

Acetic acid, 2-{[5-chloro-8-quinolinyl]oxy}-, 1-methylhexyl ester
Content (W/W): 0.24%  Skin Sens. 1
CAS Number: 99607-70-2  Aquatic Acute 1
Aquatic Chronic 1
H317, H400, H410

solvent naphtha
Content (W/W): < 20%  Asp. Tox. 1
CAS Number: 64742-94-5  Aquatic Chronic 2
REACH registration number: H411, H304, EUH066
01-2119451097-39

2-methylpropan-1-ol; iso-butanol
Content (W/W): < 5%  Flam. Liq. 3
CAS Number: 78-83-1  Skin Corr./Irrit. 2
EC-Number: 201-148-0  Eye Dam./Irrit. 1
REACH registration number: STOT SE 3 (drowsiness and dizziness)
01-2119484609-23  STOT SE 3 (irr. to respiratory syst.)
INDEX-Number: 603-108-00-1  H226, H318, H315, H336, H335

Calcium dodecylbenzenesulphonate
Content (W/W): < 5%  Skin Corr./Irrit. 2
CAS Number: 26264-06-2  Eye Dam./Irrit. 1
EC-Number: 247-557-8  H318, H315

naphthalene
Content (W/W): < 1%  Acute Tox. 4 (oral)
CAS Number: 91-20-3  Carc. 2
EC-Number: 202-049-5  Aquatic Acute 1
INDEX-Number: 601-052-00-2  Aquatic Chronic 1

Hazardous ingredients
according to Directive 1999/45/EC
S-benzyl N,N-dipropylthiocarbamate; prosulfocarb
Content (W/W): 77%
CAS Number: 52888-80-9
EC-Number: 401-730-6
INDEX-Number: 006-072-00-X
Hazard symbol(s): Xn, N
R-phrase(s): 22, 43, 51/53

clodinafop-propargyl (ISO)
Content (W/W): 0.96%
CAS Number: 105512-06-9
Hazard symbol(s): Xn, N
R-phrase(s): 22, 43, 48/22, 50/53

Acetic acid, 2-[(5-chloro-8-quinolinyl)oxy]-, 1-methylhexyl ester
Content (W/W): 0.24%
CAS Number: 99607-70-2
Hazard symbol(s): Xi, N
R-phrase(s): 43, 50/53

solvent naphtha
Content (W/W): < 20%
CAS Number: 64742-94-5
REACH registration number: 01-2119451097-39
Hazard symbol(s): Xn, N
R-phrase(s): 65, 66, 51/53

2-methylpropan-1-ol; iso-butanol
Content (W/W): < 5%
CAS Number: 78-83-1
EC-Number: 201-148-0
REACH registration number: 01-2119484609-23
INDEX-Number: 603-108-00-1
Hazard symbol(s): Xi
R-phrase(s): 10, 37/38, 41, 67

Calcium dodecylbenzenesulphonate
Content (W/W): < 5%
CAS Number: 26264-06-2
EC-Number: 247-557-8
Hazard symbol(s): Xi
R-phrase(s): 38, 41

naphthalene
Content (W/W): < 1%
CAS Number: 91-20-3
EC-Number: 202-049-5
INDEX-Number: 601-052-00-2
Hazard symbol(s): Xn, N
R-phrase(s): 22, 40, 50/53
Carc. Cat. 3

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled: Keep patient calm, remove to fresh air, seek medical attention.

On skin contact: Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
On ingestion: Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting due to aspiration hazard.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.

4.3. Indication of any immediate medical attention and special treatment needed
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media
Suitable extinguishing media: water spray, carbon dioxide, foam, dry powder

5.2. Special hazards arising from the substance or mixture
carbon monoxide, Carbon dioxide, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters
Special protective equipment: Wear self-contained breathing apparatus and chemical-protective clothing.
Further information: In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Do not breathe vapour/spray.

6.2. Environmental precautions
Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environment Agency (England & Wales), the Scottish Environmental Protection Agency (Scotland), or the Environment and Heritage Service (Northern Ireland) if it enters surface or ground waters. Keep people and animals away.

6.3. Methods and material for containment and cleaning up
For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).
For large amounts: Dike spillage. Pump off product.

Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Dispose of absorbed material in accordance with regulations.

6.4. Reference to other sections
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling
When using do not eat, drink or smoke. No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:
Vapours may form ignitable mixture with air. Prevent electrostatic charge – sources of ignition should be kept well clear - fire extinguishers should be kept handy.

7.2. Conditions for safe storage, including any incompatibilities
Segregate from foods and animal feeds.
Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

7.3. Specific end use(s)
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.
SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

Refer to the current edition of HSE Guidance Note EH40 Occupational Exposure Limits (United Kingdom). For normal use and handling refer to the product label/leaflet. In all other cases the following apply.

- 78-83-1: 2-methylpropan-1-ol; iso-butanol
  - TWA value 154 mg/m³; 50 ppm (WEL/EH 40 (UK))
  - STEL value 231 mg/m³; 75 ppm (WEL/EH 40 (UK))

- 91-20-3: naphthalene
  - TWA value 50 mg/m³; 10 ppm (OEL (EU))

8.2. Exposure controls

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for higher concentrations or long-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).

Hand protection:
Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>yellowish to brown, clear</td>
</tr>
<tr>
<td>Odour</td>
<td>amine-like</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined due to potential health hazard by inhalation.</td>
</tr>
<tr>
<td>pH value</td>
<td>approx. 4 – 8 (water, 1 %(m), 20 °C)</td>
</tr>
<tr>
<td>Melting point</td>
<td>not determined</td>
</tr>
<tr>
<td>Boiling point</td>
<td>The product has not been tested.</td>
</tr>
<tr>
<td>Flash point</td>
<td>81 °C (ASTM D93, closed cup)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>not highly flammable</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>The product has not been tested.</td>
</tr>
<tr>
<td>Density</td>
<td>approx. 1.04 g/cm³ (20 °C)</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>not applicable</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>miscible</td>
</tr>
</tbody>
</table>
Partitioning coefficient n-octanol/water (log Kow):
   not applicable
Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:
   11.7 mPa.s (40 °C)
   27.6 mPa.s (20 °C)
Explosion hazard: not explosive
Fire promoting properties: not fire-propagating

9.2. Other information
Other Information: If necessary, information on other physical and chemical parameters is indicated in this section.

SECTION 10: Stability and Reactivity

10.1. Reactivity
   No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability
   The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions
   No hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to avoid
   See MSDS section 7 – Handling and storage.

10.5. Incompatible materials
   Substances to avoid: strong bases, strong acids, strong oxidizing agents

10.6. Hazardous decomposition products
   Hazardous decomposition products:
   No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

   Acute toxicity
   Assessment of acute toxicity:
   Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

   Experimental/calculated data:
   LD₅₀ rat (oral): > 2,000 mg/kg
   LC₅₀ rat (by inhalation): > 5 mg/l 4 h (calculated)
   The product has not been tested. The statement has been derived from the properties of the individual components.
   LD₅₀ rat (dermal): > 2,000 mg/kg

   Irritation
   Assessment of irritating effects:
   Skin contact causes slight irritation. Eye contact causes irritation.

   Experimental/calculated data:
   Skin corrosion/irritation: non-irritant
   Serious eye damage/irritation rabbit: Irritant.

   Respiratory/Skin sensitization
   Assessment of sensitization:
   There is no evidence of a skin-sensitizing potential.

   Experimental/calculated data:
   Buehler test guinea pig: Non-sensitizing.
Germ cell mutagenicity
Assessment of mutagenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity
Assessment of carcinogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity
Assessment of reproduction toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity
Assessment of teratogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)
Assessment of repeated dose toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: clodinafop-propargyl (ISO)
Assessment of repeated dose toxicity:
Repeated oral exposure may affect certain organs.

Aspiration hazard
May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information
Misuse can be harmful to health.

SECTION 12: Ecological Information

12.1. Toxicity
Assessment of aquatic toxicity:
Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Toxicity to fish:
LC_{50} (96 h) 5.87 mg/l, Oncorhynchus mykiss

Aquatic invertebrates:
EC_{50} (48 h) 0.47 mg/l, Daphnia magna

Aquatic plants:
EC_{50} (96 h) approx. 0.09 mg/l (growth rate), Pseudokirchneriella subcapitata

12.2. Persistence and degradability
Assessment biodegradation and elimination (H_{2}O):
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: S-(phenylmethyl) dipropylcarbamothioate
Assessment biodegradation and elimination (H_{2}O):
Not readily biodegradable (by OECD criteria).

12.3. Bioaccumulative potential
Assessment bioaccumulation potential:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: S-(phenylmethyl) dipropylcarbamothioate
Assessment bioaccumulation potential:
Accumulation in organisms is expected.

12.4. Mobility in soil
Assessment transport between environmental compartments:
The product has not been tested. The statement has been derived from the properties of the individual components.
12.5. Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7. Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).
This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

SECTION 14: Transport Information

Land transport

ADR

UN number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains PROSULFOCARB, SOLVENT NAPHTHA)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: Tunnel code: E

RID

UN number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains PROSULFOCARB, SOLVENT NAPHTHA)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Inland waterway transport

ADN

UN number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains PROSULFOCARB, SOLVENT NAPHTHA)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known
Transport in inland waterway vessel: Not evaluated
**Sea transport**

IMDG

- **UN number:** UN 3082
- **UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PROSULFOCARB, SOLVENT NAPHTHA)
- **Transport hazard class(es):** 9, EHSM
- **Packing group:** III
- **Environmental hazards:** yes
- **Marine pollutant:** YES
- **Special precautions for user:** None known

**Air transport**

IATA/ICAO

- **UN number:** UN 3082
- **UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PROSULFOCARB, SOLVENT NAPHTHA)
- **Transport hazard class(es):** 9, EHSM
- **Packing group:** III
- **Environmental hazards:** yes
- **Special precautions for user:** None known

14.1. **UN number**
See corresponding entries for “UN number” for the respective regulations in the tables above.

14.2. **UN proper shipping name**
See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

14.3. **Transport hazard class(es)**
See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

14.4. **Packing group**
See corresponding entries for “Packing group” for the respective regulations in the tables above.

14.5. **Environmental hazards**
See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

14.6. **Special precautions for user**
See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

14.7. **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

- **Regulation:** Not evaluated
- **Shipment approved:** Not evaluated
- **Pollution name:** Not evaluated
- **Pollution category:** Not evaluated
- **Ship Type:** Not evaluated

**Further information**
This product is subject to the most recent edition of “The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations” and their amendments (United Kingdom).

**SECTION 15: Regulatory Information**

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

- **Prohibitions, Restrictions and Authorizations**
  - To avoid risks to man and the environment, comply with the instructions for use.
  - The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, ‘COSHH Essentials’ (United Kingdom).
  - This product is classified under the Chemicals (Hazard Information and Packaging) Regulations, (CHIP) (United Kingdom).
  - This product may be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments if specific threshold tonnages are exceeded (United Kingdom).

  If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
15.2. Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

SECTION 16: Other Information

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

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

- **Xn** Harmful.
- **N** Dangerous for the environment.
- **Xi** Irritant.
- **22** Harmful if swallowed.
- **43** May cause sensitization by skin contact.
- **51/53** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **48/22** Harmful; danger of serious damage to health by prolonged exposure if swallowed.
- **50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **65** Harmful; may cause lung damage if swallowed.
- **66** Repeated exposure may cause skin dryness or cracking.
- **10** Flammable.
- **37/38** Irritating to respiratory system and skin.
- **41** Risk of serious damage to eyes.
- **67** Vapours may cause drowsiness and dizziness.
- **38** Irritating to skin.
- **40** Limited evidence of a carcinogenic effect.
- **Asp. Tox.** Aspiration hazard
- **Eye Dam./Irrit.** Serious eye damage/eye irritation
- **Aquatic Acute** Hazardous to the aquatic environment - acute
- **Aquatic Chronic** Hazardous to the aquatic environment - chronic
- **Acute Tox.** Acute toxicity
- **Skin Sens.** Skin sensitization
- **STOT RE** Specific target organ toxicity — repeated exposure
- **Flam. Liq.** Flammable liquid
- **Skin Corr./Irrit.** Skin corrosion/irritation
- **STOT SE** Specific target organ toxicity — single exposure
- **Carc.** Carcinogenicity
- **Carc. Cat. 3** Carcinogenic substances Category 3: Substances which cause concern for man owing to possible carcinogenic effects.
- **H302** Harmful if swallowed.
- **H317** May cause an allergic skin reaction.
- **H411** Toxic to aquatic life with long lasting effects.
- **H400** Very toxic to aquatic life.
- **H410** Very toxic to aquatic life with long lasting effects.
- **H373** May cause damage to organs through prolonged or repeated exposure.
- **H304** May be fatal if swallowed and enters airways.
- **EUH066** Repeated exposure may cause skin dryness or cracking.
- **H226** Flammable liquid and vapour.
- **H318** Causes serious eye damage.
- **H315** Causes skin irritation.
- **H336** May cause drowsiness or dizziness.
- **H335** May cause respiratory irritation.
- **H351** Suspected of causing cancer.

If you have any queries relating to this MSDS, its contents or any other product safety related questions, please write to the following e-mail address: product-safety-north@basf.com

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.