First print date: 2014/08/02

Version: 3.6

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: AGRO-CURE

Additional information: Product code INH 480 SC/01

Relevant identification uses of the substance and uses advised against:

Identified uses: A fungicide.

Uses advised against: Use only as directed

Details of the supplier of the Safety Data Sheet:

AECI Limited
14 Field Road, LILIANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
AECI Limited: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Acute toxicity inhalation (Category 4)	H332
Eye irritant (Category 2)	H319
Reproductive toxicity (Category 2)	H361
Hazardous to the aquatic environment (Acute 1)	H400
Hazardous to the aquatic environment (Chronic 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None.

The most important adverse human health effects: Harmful if inhaled, causes serious eye irritation.

Label elements

Hazard pictograms:

Signal Word: Warning

Hazard Statements: H319 Causes serious eye irritation. H332 Harmful if inhaled. H361 Suspected of damaging fertility or the unborn child. H410 Toxic to aquatic life with long lasting effects.

Precautionary Statements: P260 Do not breathe mist/ vapours/ spray. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTRE/doctor if you feel unwell.

Special labelling of certain mixture: None
Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture
Ingredients:

Substance name (IUPAC/EC)	CAS –No. EC-No.	Concentration % By weight	Classification EC1272/2008
Ethoxylated fatty alcohol	78330-20-8 616-607-4	1-10%	Acute toxicity oral (Category 4) H302. Serious eye damage (Category 1) H318.
Mono ethylene glycol	107-21-1 203-473-3	1-10%	Acute toxicity oral (Category 4) H302.
Tebuconazole	107534-96-3 403-640-2	20-30%	Acute toxicity oral (Category 4) H302. Reproductive toxicity (Category 2) H361. Aquatic acute 1 H400. Aquatic chronic 1 H410 (M=10).
Azoxystrobin	131860-33-8 603-524-3	20-30%	Acute Toxicity inhalation (Category 3) H331. Aquatic acute 1 H400. Aquatic chronic 1 H410.

For full text of H statements see section 16

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

Most important symptoms and effects, both acute and delayed:

Inhalation: Harmful if inhaled.

Ingestions: May be harmful if swallowed.

Skin contact: May be harmful if in contact with skin.

Eye contact: Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media: Use foam, dry chemical powder or carbon dioxide.

Unsuitable extinguishing media: High volume water jet.

Special hazards arising from the mixture:

No information.

Advice for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

For emergency responders: Use an approved/certified respirator or equivalent, isolate the spill area and limit the access to emergency responders only. Avoid any contact with spilled material, use adequate protective clothes and gloves.

Environmental precautions:

Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapours. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite or diatomaceous earth

For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:

See section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See section 13 for information on disposal.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid prolonged contact with concentrate. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.

Protective measures: Observe directions on label and instructions for use.
Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Should not be stored in metal containers. Store product in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Incompatible materials; combustible materials, reducing agents, acids, alkalis.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL):
Mono ethylene glycol (CAS 107-21-1) OEL-RL $50^{(V)}$ ppm, OEL-RL STEL/C $100^{(V)}$ ppm. $20^{(H)}$ mg/m^3, $^{(V)}$Vapour fraction. $^{(H)}$aerosol only.

Biological exposure indices (BEI): No information available.

Additional exposure limits under the conditions of use: No information available.

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective OEL's if applicable. Ensure that eyewash stations and safety showers are proximal to the work-station location

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Wear appropriate clothing for task or operation. Keep working clothes separately.

Respiratory protection: Respiratory protection is required when ventilation is inadequate, or discomfort is experienced; use an approved air-purifying respirator. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Homogenous suspension.

Colour: Off-white.

Odour: No information available.

Odour threshold: No information available.

pH (at concentration): 7.81 (100%)

Melting point/range (°C): No information available

Boiling point/range (°C): No information available

Flash point (°C): No information available.

Evaporation rate: No information available.

Flammability (solid, gas): No information available

Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): No information available.

Vapour density: No information available.

Density (25°C): 1.123 g/cm^3

Water solubility (g/l) at 20°C: No information available.

n-Octanol/Water partition coefficient: No information available

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity: 1200-1800 cps

Physical hazards:

Explosive properties: No information available

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: No information available.

Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

The product is stable under normal conditions.

Chemical stability:

Stable under normal storage conditions for 2 years.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:

No information available.

Incompatible materials:

Combustible materials, reducing agents, acids, alkalis.

Hazardous decomposition products:

No information available.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Information on toxicological effects:

Acute toxicity: INHIBIT™ 480 SC

Acute oral LD_{50} for rats > 2000 mg/kg (tested).

Dermal LD_{50} for rats > 2000 to ≤ 5000 mg/kg (tested).

Inhalation LC_{50} (4 h) for rats > 1.0 to ≤ 5.00 mg/ ℓ (tested).

Chronic toxicity: No information available**.**

Skin corrosion/irritation:

INHIBIT™ 480 SC

Non-irritating to skin for rat and rabbits.

Serious eye damage/irritation:

INHIBIT™ 480 SC

Irritating to eye – reversible eye irritation for rabbit.

Respiratory or skin sensitization:

INHIBIT™ 480 SC

Non sensitizer.

Germ cell mutagenicity:

Tebuconazole: In vitro and in vivo mutagenicity tests do not indicate genotoxic activity.

Carcinogenicity: No information available**.**

Reproductive toxicity: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Ethoxylated fatty alcohol

LC_{50} >100mg/ ℓ- aquatic species (estimated data).

Tebuconazole

Birds: Acute oral LD_{50} for male Japanese quail 4438 mg/kg, female Japanese quail 2912 mg/kg, Bobwhite quail 1988 mg/kg b.w. Dietary LC_{50} (5 d) for Mallard ducks >4816 mg/kg, Bobwhite quail >5000 mg/kg feed.

Fish: LC_{50} (96 h) for *Oncorhynchus mykiss,* Rainbow trout 4, 4 mg/ ℓ, Bluegill sunfish 5.7 mg/ ℓ.
Daphnia: EC_{50} (48 h) for *Daphnia magna*, Water flea 2, 79 mg/ ℓ.
Algae: EC_{50} (72 h) *Pseudokirchneriella subcapitata*, 3, 8 mg/ ℓ.
Other aquatic spp.: EC_{15} (28 d) for *Chironomus riparius* 2.51 mg/ ℓ**.**
Bees: LD_{50} (48 h, oral) >83 µg/bee.
Worms: Acute LC_{50} (14 d) for *Eisenia foetida* 1381 mg/kg dry soil.
Other beneficial spp.: No adverse effects on ground dwellers, e.g. ground beetles (*Poecilus cupreus*) (adults and larvae) or on foliage dwellers, e.g. ladybirds (*Coccinella septempunctata*), up to 375 g/ha (EW 250 formulation).

Azoxystrobin
Birds: Acute oral LD_{50} for <Mallard ducks and Bobwhite quail >2000 mg/kg.
Sub-acute dietary LC_{50} (5 d) for Bobwhite quail and Mallard ducks >5200 mg/kg diet.
Fish: LC_{50} (96 h) for Rainbow trout 0.47 mg/ ℓ, Bluegill sunfish 1.1 mg/ ℓ, Carp 1.6 mg/ ℓ, Sheepshead minnow 0.66 mg/ ℓ.
For degradate R234886, LC_{50} >150 mg/ ℓ.
Daphnia: EC_{50} (48 h) 0.28 mg/ ℓ.
Algae: EC_{50} (120 h) for *Selenastrum capricornutum* 0.12 mg/ ℓ; EC_{50} (72 h) for diatom *Navicula pelliculosa* 0.014 mg/ ℓ.
Other aquatic spp.: LC_{50} (96 h) for Mysid shrimps 0.055 mg/ ℓ; EC_{50} (48 h) for Pacific oysters 1.3 mg/ ℓ; EC_{50} (14 d) for *Lemna gibba* 3.2 mg/ ℓ; NOEC (25 d) for Chironomid larvae 0.2 mg/ ℓ
Bee: LD_{50} for honeybees (contact) >200 µg/bee. LD_{50} for honeybees (oral) >25 µg/bee.
Worms: LC_{50} (14 d) for earthworms 283 mg/kg.
Other beneficial spp.: LR_{50} for predatory mites *Typhlodromus pyri* >1500 g/ha; LR50 for parasitoid wasps *Aphidius rhopalosiphi* >1000 g/ha.

Persistence and degradability:
Tebuconazole
Biodegradability < 70 % Exposure time: 28 d

Bioaccumulative potential:
No information available.

Mobility in soil
Tebuconazole: Has a low mobility.

Azoxystrobin: Is classified as moderately mobile in soil.

Results of PBT& vPvB assessment:
No information available.

Other adverse effects:
No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:
Consider suitable waste recycling, re-use or recovery options. Dispose of in accordance with municipal, provincial and national regulations. Waste Classification and Management Regulations (GN 634 of 2013). Dispose and or manage in accordance with the requirements contained in R634 Waste Classification & Management Regulations, R635 National

Norms & Standards for the Assessment of Waste for Landfill Disposal and R636 National Norms & Standards for Disposal of Waste to Landfill.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	3082	3082	3082
UN Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Azoxystrobin, tebuconazole) ,	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Azoxystrobin, tebuconazole)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Azoxystrobin, tebuconazole)
Transport hazard class:	9	9	9
Packaging group:	III	III	III
Marine pollutant:	yes	yes	yes
Special precautions for user:	None	None	None
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	No	No	No

Inland waterways: Not required.

Emergency response information: No information.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021.UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions: None.

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC.

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996). SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes. National Environmental Management: Waste Act 59 of 2008.

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

All sections.

Relevant Classification and Hazard Statements:

Aquatic acute 1-Hazardous to the aquatic environment (Acute 1)

Aquatic chronic 1-Hazardous to the aquatic environment (Chronic 1)

H302 Harmful if swallowed. H318 Causes serious eye damage. H319 Causes serious eye irritation. H331 Toxic if inhaled. H332 Harmful if inhaled. H361 Suspected of damaging fertility or the unborn child. H400 Very toxic to aquatic life. H401 Toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.