SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Trade name: Interface® Stressgard® Turf Fungicide
Product code (UVP): 79653646, 81777721

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

Use: Fungicide
Restrictions on use: See product label for restrictions.

1.3 Details of the supplier of the safety data sheet

Supplier: Bayer Cropscience Pty Ltd
ABN 87 000 226 022
Level 1, 8 Redfern Road
3123 Hawthorn East
Victoria
Australia
Telephone: (03) 9248 6888
Telefax: (03) 9248 6800
Responsible Department: 1800 804 479 Technical Information Service
Website: www.es.bayer.com.au

1.4 Emergency telephone no.

Emergency telephone no.: 1800 033 111 IXOM Operations Pty Ltd

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Australian GHS Regulation

Carcinogenicity: Category 2
H351 Suspected of causing cancer.

Effects on or via lactation
H362 May cause harm to breast-fed children.

Acute aquatic toxicity: Category 1
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to specific Australian legislation
Hazard label for supply/use required.
Hazardous components which must be listed on the label:

Iprodione
Trifloxystrobin

Signal word: Warning

Hazard statements

H351 Suspected of causing cancer.
H362 May cause harm to breast-fed children.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mist.
P263 Avoid contact during pregnancy/ while nursing.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P281 Use personal protective equipment as required.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature

Iprodione/Trifloxystrobin 256.40 : 16.00 g/l
Suspension concentrate (=flowable concentrate)(SC)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iprodione</td>
<td>36734-19-7</td>
<td>23.10</td>
</tr>
<tr>
<td>Trifloxystrobin</td>
<td>141517-21-7</td>
<td>1.44</td>
</tr>
<tr>
<td>1,2-Propanediol</td>
<td>57-55-6</td>
<td>&gt;= 1.00 - &lt;= 5.00</td>
</tr>
<tr>
<td>1,2-Benzisothiazol-3(2H)-one</td>
<td>2634-33-5</td>
<td>&gt;= 0.005 - &lt;= 0.05</td>
</tr>
<tr>
<td>2-Methyl-2H-isothiazol-3-one</td>
<td>2682-20-4</td>
<td>&gt;= 0.0015 - &lt;= 0.10</td>
</tr>
<tr>
<td>Other ingredients (non-hazardous)</td>
<td></td>
<td>to 100%</td>
</tr>
</tbody>
</table>

**SECTION 4. FIRST AID MEASURES**
If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.

4.1 Description of first aid measures

General advice Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation Move to fresh air. In case of respiratory arrest induce breathing with a respiratory device. Seek medical advice. Call a physician or poison control center immediately.

Skin contact Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

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

4.2 Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable High volume water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid), Hydrogen fluoride, Hydrogen chloride (HCl), Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.
Further information

Keep out of smoke. Fight fire from upwind position. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses. Avoid contact with spilled product or contaminated surfaces.

Hazchem Code •3Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions
Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions
Do not allow to get into surface water, drains and ground water. Retain and dispose of contaminated wash water. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice
Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

6.4 Reference to other sections
Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling
Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion
No special precautions required.

Hygiene measures
 Avoid contact with skin, eyes and clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove and wash contaminated gloves, including the inside, before re-use. Keep working clothes separately. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers
Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Keep away from direct sunlight. Protect from freezing.

Advice on common storage
Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iprodione</td>
<td>36734-19-7</td>
<td>1.7 mg/m³ (TWA)</td>
<td></td>
<td>OES BCS*</td>
</tr>
<tr>
<td>Trifloxystrobin</td>
<td>141517-21-7</td>
<td>2.7 mg/m³ (SK-SEN)</td>
<td></td>
<td>OES BCS*</td>
</tr>
<tr>
<td>1,2-Propanediol (Particulate.)</td>
<td>57-55-6</td>
<td>10 mg/m³ (TWA)</td>
<td>12 2011</td>
<td>AU NOEL</td>
</tr>
<tr>
<td>1,2-Propanediol (Total vapour and particulates.)</td>
<td>57-55-6</td>
<td>474 mg/m³/150 ppm (TWA)</td>
<td>12 2011</td>
<td>AU NOEL</td>
</tr>
</tbody>
</table>

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls

Respiratory protection
Respiratory protection is not required under anticipated circumstances of exposure.
Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.
Material: Nitrile rubber
Rate of permeability: > 480 min
Glove thickness: > 0.4 mm
Protective index: Class 6

Eye protection
Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection
Wear standard coveralls and Category 3 Type 6 suit.
If there is a risk of significant exposure, consider a higher protective
General protective measures

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.

Engineering Controls

Advice on safe handling

Use only in area provided with appropriate exhaust ventilation.

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>suspension</td>
</tr>
<tr>
<td>Colour</td>
<td>green</td>
</tr>
<tr>
<td>Odour</td>
<td>musty</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>4.0 - 7.0 (100 %) (23 °C)</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Minimum ignition energy</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Self-accelerating decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>1.11 g/cm³ (20 °C)</td>
</tr>
<tr>
<td>Water solubility</td>
<td>dispersible</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Trifloxystrobin: log Pow: 4.5 (25 °C)</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>550 - 1,000 cps (25 °C)</td>
</tr>
</tbody>
</table>
Viscosity, kinematic
Oxidizing properties
Explosivity
9.2 Other information

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
Thermal decomposition
Stable under normal conditions.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions when stored and handled according to prescribed instructions.

10.4 Conditions to avoid
Extremes of temperature and direct sunlight.

10.5 Incompatible materials
Store only in the original container.

10.6 Hazardous decomposition products
No decomposition products expected under normal conditions of use.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute oral toxicity
LD50 (Rat) 5,000 mg/kg

Acute inhalation toxicity
LC50 (Rat) > 2.56 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
highest concentration tested

Acute dermal toxicity
LD50 (Rat) > 5,000 mg/kg

Skin corrosion/irritation
No skin irritation (Rabbit)

Serious eye damage/eye irritation
slight irritation (Rabbit)

Respiratory or skin sensitisation
Skin: Non-sensitizing. (Guinea pig)
OECD Test Guideline 406, Buehler test
Skın: Non-sensitizing. (Mouse)
OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment mutagenicity
Iprodione was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.
Trifloxystrobin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity
Iprodione caused at high dose levels an increased incidence of tumours in the following organ(s): Liver,
Testes. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans. Trifloxystrobin was not carcinogenic in lifetime feeding studies in rats and mice.

**Assessment toxicity to reproduction**

Iprodione did not cause reproductive toxicity in a two-generation study in rats.

Trifloxystrobin caused reduced body weight development in offspring during lactation only at doses also producing systemic toxicity in adult rats.

**Assessment developmental toxicity**

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

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

**Assessment STOT Specific target organ toxicity – single exposure**

Iprodione: Based on available data, the classification criteria are not met.

Trifloxystrobin: Based on available data, the classification criteria are not met.

**Assessment STOT Specific target organ toxicity – repeated exposure**

Iprodione caused specific target organ toxicity in experimental animal studies in rats in the following organ(s): Adrenal gland.

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

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Information on likely routes of exposure**

Caution!

Harmful if swallowed., Avoid contact with skin, eyes and clothing., Wash thoroughly with soap and water after handling.

Avoid contact or inhalation of spray mist.

Harmful if swallowed., Do not take internally.

This product or its components may have target organ effects., This product or its components may have long term (chronic) health effects.

Toxic to fish and aquatic invertebrates.

**Early onset symptoms related to exposure**

Refer to Section 4

**Delayed health effects from exposure**

Refer to Section 11

**Exposure levels and health effects**

Refer to Section 4

**Interactive effects**

Not known

**When specific chemical data is not available**

Not applicable

**Mixture of chemicals**
Refer to Section 2.1

Further information
Only acute toxicity studies have been performed on the formulated product. The non-acute information pertains to the active ingredient(s).

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish  
LC50 (Oncorhynchus mykiss (rainbow trout)) 1.47 mg/l  
Exposure time: 96 h

Toxicity to aquatic invertebrates  
EC50 (Daphnia magna (Water flea)) 0.6 mg/l  
Exposure time: 48 h

LC50 (Mysidopsis bahia (mysid shrimp)) 0.00862 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient trifloxystrobin.

Toxicity to aquatic plants  
ErC50 (Raphidocelis subcapitata (freshwater green alga)) 5.32 mg/l  
Growth rate; Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)) 0.0025 mg/l  
Growth rate; Exposure time: 72 h  
The value mentioned relates to the active ingredient trifloxystrobin.

Toxicity to other organisms  
LD50 (Apis mellifera (bees))  
Exposure time: 48 d  
Non-hazardous for bees.

12.2 Persistence and degradability

Biodegradability  
Iprodione:  
Not rapidly biodegradable

Trifloxystrobin:  
Not rapidly biodegradable

Koc  
Iprodione: Koc: 202 - 543

Trifloxystrobin: Koc: 2377

12.3 Bioaccumulative potential

Bioaccumulation  
Iprodione: Bioconcentration factor (BCF) 70  
Does not bioaccumulate.

Trifloxystrobin: Bioconcentration factor (BCF) 431  
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil  
Iprodione: Moderately mobile in soils

Trifloxystrobin: Slightly mobile in soils

12.5 Other adverse effects

Additional ecological information  
No other effects to be mentioned.
SECTION 13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Dispose of rinsings in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory Government Regulations. DO NOT burn empty containers or product.

SECTION 14. TRANSPORT INFORMATION

ADG

| UN number | 3082 |
| Transport hazard class(es) | 9 |
| Subsidiary Risk | None |
| Packaging group | III |
| Description of the goods | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IPRODIONE SOLUTION) |
| Hazchem Code | •3Z |

AU01: Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;

a) packagings that do not incorporate a receptacle exceeding 500 kg(L); or
b) IBCs

IMDG

| UN number | 3082 |
| Transport hazard class(es) | 9 |
| Subsidiary Risk | None |
| Packaging group | III |
| Marine pollutant | YES |
| Description of the goods | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IPRODIONE SOLUTION) |

IATA

| UN number | 3082 |
| Transport hazard class(es) | 9 |
| Subsidiary Risk | None |
| Packaging group | III |
| Environm. Hazardous Mark | YES |
| Description of the goods | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IPRODIONE SOLUTION) |

SECTION 15. REGULATORY INFORMATION
Registered according to the Agricultural and Veterinary Chemicals Code Act 1994
Australian Pesticides and Veterinary Medicines Authority approval number: 68029

**SUSMP classification (Poison Schedule)**
Schedule 5 (Standard for the Uniform Scheduling of Medicines and Poisons)

### SECTION 16. OTHER INFORMATION

**Trademark information** Interface® and Stressgard® are Registered Trademarks of the Bayer Group.

**Abbreviations and acronyms**

- **ADN**: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- **ADR**: European Agreement concerning the International Carriage of Dangerous Goods by Road
- **ATE**: Acute toxicity estimate
- **AU OEL**: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
- **CAS-Nr.**: Chemical Abstracts Service number
- **CEILING**: Ceiling Limit Value
- **Conc.**: Concentration
- **EC-No.**: European community number
- **ECx**: Effective concentration to x %
- **EINECS**: European inventory of existing commercial substances
- **ELINCS**: European list of notified chemical substances
- **EN**: European Standard
- **EU**: European Union
- **IATA**: International Air Transport Association
- **IBC**: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
- **ICx**: Inhibition concentration to x %
- **IMDG**: International Maritime Dangerous Goods
- **LCx**: Lethal concentration to x %
- **LDx**: Lethal dose to x %
- **LOEC/LOEL**: Lowest observed effect concentration/level
- **MARPOL**: MARPOL: International Convention for the prevention of marine pollution from ships
- **N.O.S.**: Not otherwise specified
- **NOEC/NOEL**: No observed effect concentration/level
- **OECD**: Organization for Economic Co-operation and Development
- **OES BCS**: OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"
- **PEAK**: PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
- **RID**: Regulations concerning the International Carriage of Dangerous Goods by Rail
- **SK-SEN**: Skin sensitiser
- **SKIN_DES**: SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.
- **STEL**: STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the
eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.

TWA  
TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

TWA  
Time weighted average

UN  
United Nations

WHO  
World health organisation

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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