SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name CALEY IBLON

Product code (UVP) 84496634

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

Use Fungicide

EPA-Nr. HSR101413

1.3 Details of the supplier of the safety data sheet

Supplier
Bayer New Zealand Limited
CropScience Division
B:HIVE Building
74 Taharoto Rd
Smales Farm
Takapuna
Auckland, 0622
New Zealand

Telephone 0800 428 246

Telefax (09) 441 8645

1.4 Emergency telephone no.

Emergency Number 0800 734 607 (24hr)

Global Incident Response Hotline (24h) +1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2020 as amended

6.1 E
H333 May be harmful if inhaled.

8.3 A
H318 Causes serious eye damage.

6.5 B
H317 May cause an allergic skin reaction.

6.9 B
H373 May cause damage to organs through prolonged or repeated exposure.

9.1 A
H410 Very toxic to aquatic life with long lasting effects.

9.3 C
H433 Harmful to terrestrial vertebrates.

2.2 Label elements

Labelling in accordance with the Hazardous Substances (Safety Data Sheets) Notice 2020 as amended

Signal word: Danger

Hazard statements

H333 May be harmful if inhaled.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.
H433 Harmful to terrestrial vertebrates.

Precautionary statements

P102 Keep out of reach of children.
P103 Read label before use.
P280 Wear protective gloves/ protective clothing.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.
P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No additional hazards known beside those mentioned.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Emulsifiable concentrate (EC)
Isoflucypram/Prothioconazole 50:100 g/l

Hazardous components

Chemical name	CAS-No.	Conc. [%]
Isoflucypram	1255734-28-1	5.00
Prothioconazole	178928-70-6	10.00
N,N-Dimethyl decanamide	14433-76-2	>= 25.00
2-Ethylhexanol propylene ethyleneglycol ether	64366-70-7	>= 1.00 – < 25.00

Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	< 10.00

Further information

Isoflucypram	1255734-28-1	M-Factor: 10 (acute), 1 (chronic)

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

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

Inhalation Move to fresh air. Keep patient warm and at rest. 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 Do NOT induce vomiting. Call a physician or poison control center immediately. To prevent aspiration of swallowed product, lay in stable position on one side. Risk of product entering the lungs on vomiting after ingestion. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms If large amounts are ingested, the following symptoms may occur:

Headache, Nausea, Dizziness, Somnolence

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Aspiration may cause pulmonary oedema and pneumonitis.

Inhalation may provoke the following symptoms:

Cough, Shortness of breath, Cyanosis, Fever

Symptoms and hazards refer to the solvent.

4.3 Indication of any immediate medical attention and special treatment needed

Risks Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.

Treatment	Treat symptomatically. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. In case of aspiration intubation and bronchial lavage should be considered. Monitor: kidney, liver and pancreas function. There is no specific antidote. Contraindication: derivatives of adrenaline.

Contact the National Poisons and Hazardous Chemicals Information center in Dunedin, PO Box 913, Dunedin. Phone 0800 POISON (0800 764 766).

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
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, Carbon monoxide (CO), 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. In the event of fire, wear self-contained breathing apparatus.
Further information	Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

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. Ensure adequate ventilation.
6.2 Environmental precautions	Do not allow to get into surface water, drains and ground water.

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). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.
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 Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Wash hands immediately after work, if necessary take a shower. 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.

Suitable materials Coex HDPE/EVOH/HDPE - steel case

7.3 Specific end use(s) Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Prothioconazole	178928-70-6	1.4 mg/m3 (SK-ABS)		OES BCS*
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	1,600 mg/m3/400 ppm (TWA)	02 2013	NZ OEL

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

8.2 Exposure controls

Personal protective equipment
In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection If product is handled while not enclosed, and if contact may occur: Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. 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
Directive	Protective gloves complying with EN 374.

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

Skin and body protection
Wear standard coveralls and Category 3 Type 4 suit.
If there is a risk of significant exposure, consider a higher protective type suit.
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.
If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

General protective measures
If product is handled while not enclosed, and if contact may occur:
Complete suit protecting against chemicals

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	Liquid, clear to slightly turbid
Colour	yellow to brown
Odour	aromatic
Odour Threshold	No data available
pH	3.5 - 5.5 (1 %) (23 °C) (deionized water)
Melting point/range	No data available
Boiling Point	No data available
Flash point	136 °C
Flammability	No data available
Auto-ignition temperature	360 °C
Minimum ignition energy	No data available
Self-accelarating decomposition temperature (SADT)	No data available
Upper explosion limit	No data available

Lower explosion limit	No data available
Vapour pressure	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Relative density	No data available
Density	ca. 1.00 g/cm³ (20 °C)
Water solubility	No data available
Partition coefficient: n-octanol/water	Isoflucypram: log Pow: 4 (25 °C) (pH 7) Prothioconazole: log Pow: 3.82 (20 °C) (pH 7) N,N-Dimethyldecanamide: log Pow: 2.46
Viscosity, dynamic	No data available
Viscosity, kinematic	24.65 mm²/s (40 °C) Shear rate of 20/sec 25.01 mm²/s (40 °C) Shear rate of 100/sec
Surface tension	33 mN/m (20 °C) 26 mN/m (25 °C) Determined in the undiluted form.
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive 92/69/EEC, A.14 / OECD 113
9.2 Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	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) > 2,000 mg/kg
Acute inhalation toxicity	LC50 (Rat) > 5.19 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol.
Acute dermal toxicity	LD50 (Rat) > 2,000 mg/kg
Skin corrosion/irritation	No skin irritation (Rabbit)
Serious eye damage/eye irritation	Severe eye irritation.
Respiratory or skin sensitisation	Skin: Sensitising (Mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – single exposure

Isoflucypram: Based on available data, the classification criteria are not met.
Prothioconazole: Based on available data, the classification criteria are not met.
N,N-Dimethyldecan-1-amide: May cause respiratory irritation.

Assessment STOT Specific target organ toxicity – repeated exposure

Isoflucypram : May cause damage to organs through prolonged or repeated exposure.
Prothioconazole did not cause specific target organ toxicity in experimental animal studies.
N,N-Dimethyldecanamide did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Isoflucypram was not genotoxic in a battery of in vitro and in vivo tests.
Prothioconazole was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.
N,N-Dimethyldecanamide was not genotoxic in a battery of in vitro tests.

Assessment carcinogenicity

Isoflucypram was not carcinogenic in lifetime feeding studies in rats and mice.
Prothioconazole was not carcinogenic in lifetime feeding studies in rats and mice.
N,N-Dimethyldecanamide is not considered carcinogenic.

Assessment toxicity to reproduction

Isoflucypram did not cause reproductive toxicity in a two-generation study in rats.
Prothioconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Prothioconazole is related to parental toxicity.
N,N-Dimethyldecanamide is not considered a reproductive toxicant at non-maternally toxic dose levels.

Assessment developmental toxicity

Isoflucypram did not cause developmental toxicity in rats and rabbits.
Prothioconazole caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Prothioconazole are related to maternal toxicity.
N,N-Dimethyldecanamide did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

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

11.2 Information on other hazards

Endocrine disrupting properties

Assessment	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 1.41 mg/l static test; Exposure time: 96 h
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 1.88 mg/l static test; Exposure time: 48 h
Toxicity to aquatic plants	ErC50 (Raphidocelis subcapitata (freshwater green alga)) 3.78 mg/l static test; Exposure time: 96 h
	NOEC (Raphidocelis subcapitata (freshwater green alga)) 0.75 mg/l static test; Exposure time: 96 h
	ErC50 (Skeletonema costatum) 0.03278 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient prothioconazole.
	EC10 (Skeletonema costatum) 0.01427 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient prothioconazole.

12.2 Persistence and degradability

Biodegradability	Isoflucypram: Not rapidly biodegradable Prothioconazole: Not rapidly biodegradable N,N-Dimethyldecanamide: rapidly biodegradable
Koc	Isoflucypram: Koc: 1580 Prothioconazole: Koc: 1765

12.3 Bioaccumulative potential

Bioaccumulation	Isoflucypram: Bioconcentration factor (BCF) 370 Prothioconazole: Bioconcentration factor (BCF) 19 Does not bioaccumulate. N,N-Dimethyldecanamide: Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil	Isoflucypram: Immobile in soil Prothioconazole: Slightly mobile in soils N,N-Dimethyldecanamide: Slightly mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Isoflucypram: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Prothioconazole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
N,N-Dimethyldecanamide: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Endocrine disrupting properties

Assessment The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

Contaminated packaging Triple rinse containers. Recycle if possible. If allowed under local authority, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. Do not use container for any other purpose.

SECTION 14: TRANSPORT INFORMATION

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

ADR/RID/ADN

14.1 UN number	**3082**
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOFLUCYPRAM, PROTHIOCONAZOLE SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES
Hazchem Code	3Z

IMDG

14.1 UN number	**3082**

14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOFLUCYPRAM, PROTHIOCONAZOLE SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Marine pollutant	YES

IATA

14.1 UN number	**3082**
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOFLUCYPRAM, PROTHIOCONAZOLE SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES

14.6 Special precautions for user
See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

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

Further information

HSNO approval-Nr.	HSR101413
HSNO Controls	See www.epa.govt.nz
ACVM Reg.	P9637
ACVM Condition	See www.foodsafety.govt.nz

SECTION 16: OTHER INFORMATION

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
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
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
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.

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