We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
Inveris G75

Use: crop protection product, insecticide

Manufacturer/supplier:
BASF South East Asia Pte Ltd.
128 Beach Road #18-01
Guoco Midtown, 189773, Singapore
Telephone: +65 8322 4420
Telefax number: +65 6 334-0330
E-mail address: benny.zou@basf.com

Emergency information:
Singapore Emergency Toll-Free Number:
Telephone: 1800-723-1361
International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat.4 (oral)
Acute toxicity: Cat.3 (Inhalation - mist)
Skin irritation: Cat.2
Specific target organ toxicity — repeated exposure (Central nervous system): Cat.2
Hazardous to the aquatic environment - acute: Cat.1
Hazardous to the aquatic environment - chronic: Cat.1

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H315	Causes skin irritation.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H373	May cause damage to organs (Central nervous system) through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statement:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves.
P260	Do not breathe dust/gas/mist/vapours.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311	Call a POISON CENTER or physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P330	Rinse mouth.
P391	Collect spillage.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
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. Composition/information on ingredients

Chemical nature

Substance nature: mixture

crop protection product, insecticide

Hazardous ingredients

Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester

Content (W/W): 4.85 %	Aquatic Acute: Cat. 2
CAS Number: 915972-17-7	Aquatic Chronic: Cat. 1
	M-factor chronic: 10000

Abamectin

Content (W/W): 2.47 %	Acute Tox.: Cat. 1 (Inhalation - dust)
CAS Number: 71751-41-2	Acute Tox.: Cat. 2 (oral)
	Acute Tox.: Cat. 3 (dermal)
	Repr.: Cat. 2 (unborn child)
	STOT RE (Central nervous system): Cat. 1
	Aquatic Acute: Cat. 1
	Aquatic Chronic: Cat. 1
	M-factor acute: 10000
	M-factor chronic: 10000

Alcohols, C12-18, ethoxylated propoxylated

Content (W/W): < 60 %	Aquatic Acute: Cat. 2
CAS Number: 69227-21-0	

Poly(oxy-1,2-ethanediyl), .alpha.-phenyl-.omega.-hydroxy-, styrenated

Content (W/W): < 10 %	Aquatic Acute: Cat. 2
CAS Number: 104376-75-2	Aquatic Chronic: Cat. 2

Octanamide, N,N-dimethyl-

Content (W/W): < 5 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 1118-92-9	Acute Tox.: Cat. 5 (dermal)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Acute: Cat. 2

Decanamide, N,N-dimethyl-

Content (W/W): < 5 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 14433-76-2	Skin Irrit.: Cat. 2
	Eye Irrit.: Cat. 2A
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

propane-1,2-diol
Content (W/W): < 35 %
CAS Number: 57-55-6

4. First-Aid Measures

General advice:
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.

Note to physician:
Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far
Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

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

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
carbon monoxide, carbon dioxide, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. 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.

6. Accidental Release Measures

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

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

Methods for cleaning up or taking 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.
Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

7. Handling and Storage

Handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

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.

Storage

Segregate from foods and animal feeds.
Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

Storage stability:
Storage duration: 36 Months

8. Exposure controls and personal protection

Components with occupational exposure limits

Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester, 915972-17-7;
TWA value 0.2 mg/m3 (BASF recomm. occupational exposure limit)

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for lower concentrations or short-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic, alkaline compounds and toxic particles (e. g. EN 14387 Type ABEK-P3)

Hand protection:
Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

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. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid
Colour:	yellow
Odour:	odourless
Odour threshold:	Not determined since toxic by inhalation.
pH value:	approx. 6 - 8 (20 °C)
Melting point:	< 0 °C
Boiling point:	approx. 188 °C
Flash point:	106 °C
Evaporation rate:	not applicable
Flammability (solid/gas):	not applicable
Lower explosion limit:	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.

Upper explosion limit:
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.

Ignition temperature: 391 °C

Thermal decomposition: 160 °C , 60 kJ/kg

360 °C , 100 kJ/kg

Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

SADT: No data available.

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

Vapour pressure: approx. 0.1 hPa
(20 °C)

Density: approx. 1.01 - 1.02 g/cm3
(20 °C)

Relative density:
No data available.

Relative vapour density (air):
not applicable

Solubility in water: dispersible

Partitioning coefficient n-octanol/water (log Pow):
not applicable for mixtures

Viscosity, dynamic: approx. 180 mPa.s
(20 °C)

Viscosity, kinematic:
No data available.

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

Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular form. -

Specific Surface Area:
No data available.

Particle Shape:
No data available.

Dustiness:
No data available.

10. Stability and Reactivity

Conditions to avoid:
See SDS section 7 - Handling and storage.

Thermal decomposition:	160 °C, 60 kJ/kg
Thermal decomposition:	360 °C, 100 kJ/kg
Thermal decomposition:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

Substances to avoid:
strong acids, strong bases, strong oxidizing agents

Hazardous reactions:
No hazardous reactions if stored and handled as prescribed/indicated.

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

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

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

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:
LD50rat (oral): > 500 - < 2,000 mg/kg

Acute inhalation toxicity

LC50 rat (by inhalation): > 0.543 mg/l 4 h
No mortality was observed. An aerosol with respirable particles was tested.

Acute dermal toxicity

LD50 rat (dermal): > 5,000 mg/kg
No mortality was observed.

Assessment of acute toxicity

Of pronounced toxicity after short-term inhalation. Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact.

Symptoms

Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
(Further) symptoms and / or effects are not known so far

Irritation

Assessment of irritating effects:
Skin contact causes irritation. Not irritating to the eyes.

Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant.

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:
No sensitizing effect.

Experimental/calculated data:
Buehler test guinea pig: Non-sensitizing.

Germ cell mutagenicity

Assessment of mutagenicity:
Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components.

Experimental/calculated data:
No data available.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester
Assessment of carcinogenicity:
In long-term animal studies in which the substance was given in high doses by feed, a carcinogenic effect was observed. The effect is caused by an animal specific mechanism that has no human counter part.

Reproductive toxicity

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

Experimental/calculated data:
No data available.

Developmental toxicity

Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Abamectin
Assessment of teratogenicity:
Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

Information on: N,N-Dimethyloctanamide
Assessment of teratogenicity:
The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: N,N-Dimethyldecan-1-amide
Assessment of teratogenicity:
The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Specific target organ toxicity (single exposure)

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

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.

Experimental/calculated data:
No data available.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester
Assessment of repeated dose toxicity:
Repeated exposure to large quantities may affect certain organs. Based on available data, the classification criteria are not met.

Information on: Abamectin
Assessment of repeated dose toxicity:
Repeated inhalation exposure to small quantities may affect certain organs.
Repeated oral exposure to small quantities may affect certain organs.

Information on: N,N-Dimethyloctanamide
Assessment of repeated dose toxicity:
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. After repeated exposure the prominent effect is local irritation.

Information on: N,N-Dimethyldecan-1-amide

Assessment of repeated dose toxicity:
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. After repeated exposure the prominent effect is local irritation.

Aspiration hazard

not applicable

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Very toxic to aquatic life with long lasting effects.

Toxicity to fish:
LC50 (96 h) 0.083 mg/l, Oncorhynchus mykiss

Aquatic invertebrates:
EC50 (48 h) 0.00181 mg/l, Daphnia magna

Aquatic plants:
EC50 (72 h) 4.13 mg/l, Pseudokirchneriella subcapitata

Microorganisms/Effect on activated sludge:
No data available.

Chronic toxicity to fish:
No data available.

Chronic toxicity to aquatic invertebrates:
No data available.

Information on: Abamectin
Chronic toxicity to fish:
No observed effect concentration (28 d) 0.00052 mg/l, Oncorhynchus mykiss
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Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester
Chronic toxicity to aquatic invertebrates:
No observed effect concentration (28 d), 0.000004 mg/l, Mysidopsis bahia

Information on: Abamectin
Chronic toxicity to aquatic invertebrates:
No observed effect concentration (28 d), 0,0000035 mg/l, Mysidopsis bahia
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Mobility

Assessment transport between environmental compartments:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester
Assessment transport between environmental compartments:
Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Information on: Abamectin
Assessment transport between environmental compartments:
Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester
Assessment biodegradation and elimination (H2O):
Not readily biodegradable (by OECD criteria).

Information on: Abamectin
Assessment biodegradation and elimination (H2O):
Not readily biodegradable (by OECD criteria).

Bioaccumulation potential

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

Information on: Abamectin
Assessment bioaccumulation potential:
Accumulation in organisms is not to be expected.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester
Bioaccumulation potential:
Bioconcentration factor: 0.06
Does not accumulate in organisms.

Additional information

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

13. Disposal Considerations

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

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

14. Transport Information

Domestic transport:

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ABAMECTIN, AFIDOPYROPEN)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Sea transport
IMDG

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ABAMECTIN, AFIDOPYROPEN)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes Marine pollutant: YES
Special precautions for user:	EmS: F-A; S-F

Air transport
IATA/ICAO

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ABAMECTIN, AFIDOPYROPEN)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

Further information
Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

Other regulations

To avoid risks to man and the environment, comply with the instructions for use.

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

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. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.