

ACTELIC 50 EC

Version 12.0 Revision Date: 12.11.2015 MSDS Number: S145121155 This version replaces all previous versions.

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

1.1 Product identifier

Trade name : ACTELIC 50 EC

Design code : A5832C

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

Use of the Sub-stance/Mixture : Insecticide

1.3 Details of the supplier of the safety data sheet

Company : Syngenta Crop Protection AG
Postfach
CH-4002 Basel
Switzerland

Telephone : +41 61 323 11 11

Telefax : +41 61 323 12 12

E-mail address : sds.ch@syngenta.com

1.4 Emergency telephone number

Emergency telephone number : +44 1484 538444

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Acute toxicity, Category 4	H302: Harmful if swallowed.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Skin sensitisation, Sub-category 1B	H317: May cause an allergic skin reaction.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Specific target organ toxicity - single exposure, Category 3	H335: May cause respiratory irritation.
Specific target organ toxicity - single exposure, Category 3	H336: May cause drowsiness or dizziness.
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

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effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements :

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements :

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 statements :

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/?.
P331	Do NOT induce vomiting.
P391	Collect spillage.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

pirimiphos-methyl

solvent naphtha (petroleum), light arom.

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2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
pirimiphos-methyl	29232-93-7 249-528-5	Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 30 - <= 60
solvent naphtha (petroleum), light arom.	64742-95-6 265-199-0	Flam. Liq. 3; H226 STOT SE 3; H336 STOT SE 3; H335 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	40 - 50
calcium dodecylbenzenesulphonate	26264-06-2 247-557-8	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412	1 - 5
2-methylpropan-1-ol	78-83-1 201-148-0	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 STOT SE 3; H336	1 - 2

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- If inhaled : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control centre immediately.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
If skin irritation persists, call a physician.
Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.

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Immediate medical attention is required.

If swallowed

: If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : The symptoms are of cholinesterase inhibition

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Call Syngenta at the emergency number shown in this document, a poison control center or doctor immediately for treatment advice.
Consider taking venous blood for determination of blood cholinesterase activity (use heparin tube)
Administer atropine sulfate, either by intramuscular or intravenously, dependant on severity of poisoning
Specific antidotes are oximes (e.g. Pralidoxime) or Toxogonin

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
Flash back possible over considerable distance.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.

Further information : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Refer to protective measures listed in sections 7 and 8.
Keep people away from and upwind of spill/leak.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Remove all sources of ignition.
Pay attention to flashback.

6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Refer to disposal considerations listed in section 13., Refer to protective measures listed in sections 7 and 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
Use only in an area containing flame proof equipment.
Take precautionary measures against static discharges.
For personal protection see section 8.

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. Keep out of the reach of children. Keep away from combustible material. Keep in an area equipped with sprinklers. Keep away from food, drink and animal feed-stuffs. No smoking.

Other data : Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

7.3 Specific end use(s)

Specific use(s) : For proper and safe use of this product, please refer to the

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approval conditions laid down on the product label.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
pirimiphos-methyl	29232-93-7	TWA	3 mg/m ³ (Skin)	Syngenta
solvent naphtha (petroleum), light arom.	64742-95-6	TWA	19 ppm 100 mg/m ³	Supplier

8.2 Exposure controls

Engineering measures

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

If airborne mists or vapors are generated, use local exhaust ventilation controls.

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Eye protection : If eye contact is possible, use tight-fitting chemical safety goggles and a face shield.

Hand protection

Material : Nitrile rubber
Break through time : > 480 min
Glove thickness : 0.5 mm

Remarks : Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin and body protection

: Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material.
Wash with soap and water after removing protective clothing.
Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.)
Wear as appropriate:
impervious protective suit

Respiratory protection

: A gas and vapor filter respirator may be necessary until effec-

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tive technical measures are installed.
Protection provided by air-purifying respirators is limited.
Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.
Personal protective equipment should be certified to appropriate standards.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid, clear

Colour : light yellow to brown

Odour : aromatic

pH : 4 - 8, Concentration: 1 % w/v

Flash point : 48 °C

Density : 1.02 g/cm³ (25 °C)

Solubility(ies)
Solubility in other solvents : Miscible
Solvent: Water

Auto-ignition temperature : 410 °C

Viscosity
Viscosity, dynamic : 4.61 mPa.s (40 °C)
8.08 mPa.s (20 °C)

Explosive properties : Classification Code: Not explosive

Oxidizing properties : not oxidizing

9.2 Other information

Surface tension : 35.3 mN/m, 25 °C

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SECTION 10: Stability and reactivity

10.1 Reactivity

See section 10.3 "Possibility of hazardous reactions".

10.2 Chemical stability

The product is stable when used in normal conditions

10.3 Possibility of hazardous reactions

Hazardous reactions : No hazardous reactions by normal handling and storage according to provisions.

10.4 Conditions to avoid

Conditions to avoid : No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid : No substances are known which lead to the formation of hazardous substances or thermal reactions.

10.6 Hazardous decomposition products

Combustion or thermal decomposition will evolve toxic and irritant vapors.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, female): 300 - 2,000 mg/kg

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Components:

pirimiphos-methyl:

Acute oral toxicity : LD50 (Rat, male and female): 1,414 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.04 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

solvent naphtha (petroleum), light arom.:

Acute oral toxicity : LD50 (Rat): 3,952 mg/kg

Acute inhalation toxicity : Remarks: Irritating to respiratory system.

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg

2-methylpropan-1-ol:

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Acute oral toxicity : LD50 (Rat): 2,830 - 3,350 mg/kg
Acute inhalation toxicity : LC50 (Rat): > 18.18 mg/l
Exposure time: 6 h
Acute dermal toxicity : LD50 (Rat): > 2,000 - 2,460 mg/kg

Skin corrosion/irritation

Product:

Species: Rabbit
Result: Mildly irritating

Components:

pirimiphos-methyl:
Species: Rabbit
Result: Slightly irritating

solvent naphtha (petroleum), light arom.:

Result: Non-irritating

2-methylpropan-1-ol:

Result: irritating

Serious eye damage/eye irritation

Product:

Species: Rabbit
Result: Moderately irritating

Components:

pirimiphos-methyl:
Species: Rabbit
Result: Mildly irritating

solvent naphtha (petroleum), light arom.:

Result: Non-irritating

2-methylpropan-1-ol:

Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Product:

Test Type: Buehler Test
Species: Guinea pig
Result: A skin sensitizer in animal tests.

Components:

pirimiphos-methyl:
Species: Guinea pig
Result: A mild skin sensitizer in animal tests

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solvent naphtha (petroleum), light arom.:

Result: Not a skin sensitizer.

2-methylpropan-1-ol:

Result: Not a skin sensitizer in animal tests.

Germ cell mutagenicity

Components:

pirimiphos-methyl:

Germ cell mutagenicity- Assessment : Did not show mutagenic effects in animal experiments.

2-methylpropan-1-ol:

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

pirimiphos-methyl:

Carcinogenicity - Assessment : Did not show carcinogenic effects in animal experiments.

solvent naphtha (petroleum), light arom.:

Carcinogenicity - Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

2-methylpropan-1-ol:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Components:

pirimiphos-methyl:

Reproductive toxicity - Assessment : Did not show reproductive toxicity effects in animal experiments.
Did not show teratogenic effects in animal experiments.

2-methylpropan-1-ol:

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.
Animal testing did not show any effects on foetal development.

STOT - single exposure

Components:

solvent naphtha (petroleum), light arom.:

Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.

2-methylpropan-1-ol:

Assessment: May cause drowsiness or dizziness., May cause respiratory irritation.

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Repeated dose toxicity

Components:

pirimiphos-methyl:

Remarks: No adverse effect has been observed in chronic toxicity tests.

Aspiration toxicity

Components:

solvent naphtha (petroleum), light arom.:

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (*Cyprinus carpio* (Carp)): 6.2 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 0.48 µg/l
Exposure time: 48 h

Toxicity to algae : EbC50 (*Pseudokirchneriella subcapitata* (green algae)): 3.07 mg/l
Exposure time: 72 h

ErC50 (*Pseudokirchneriella subcapitata* (green algae)): 8.27 mg/l
Exposure time: 72 h

Components:

pirimiphos-methyl:

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 0.64 mg/l
Exposure time: 96 h

NOEC (*Oncorhynchus mykiss* (rainbow trout)): < 0.023 mg/l
Exposure time: 28 d

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 0.21 µg/l
Exposure time: 48 h

NOEC (*Daphnia magna* (Water flea)): 0.05 µg/l
Exposure time: 21 d

Toxicity to algae : ErC50 (*Pseudokirchneriella subcapitata* (green algae)): 3.38 mg/l
Exposure time: 72 h

NOErC (*Pseudokirchneriella subcapitata* (green algae)): 0.3

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	mg/l
	Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	: 1,000
Toxicity to bacteria	: (Pseudomonas putida): > 4.5 mg/l Exposure time: 6 h Test Type: IC50
M-Factor (Chronic aquatic toxicity)	: 1,000
solvent naphtha (petroleum), light arom.:	
Toxicity to fish (Chronic toxicity)	: NOELR: 1.23 mg/l Exposure time: 28 d Species: Oncorhynchus mykiss (rainbow trout)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOELR: 2.14 mg/l Exposure time: 28 d Species: Daphnia magna (Water flea)
Ecotoxicology Assessment Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.
2-methylpropan-1-ol:	
Toxicity to fish	: LC50 (Pimephales promelas (fathead minnow)): 1,430 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 1,100 mg/l Exposure time: 48 h Test Type: static test
	NOEC : 20 mg/l Exposure time: 21 d Test Type: semi-static test
Toxicity to algae	: EC50 (Pseudokirchneriella subcapitata (green algae)): 1,799 mg/l End point: Growth rate Exposure time: 72 h

12.2 Persistence and degradability

Components:

pirimiphos-methyl:

Stability in water : Degradation half life: 4 - 6 d
Remarks: Not persistent in water.

12.3 Bioaccumulative potential

Components:

pirimiphos-methyl:

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Bioaccumulation : Remarks: High bioaccumulation potential.

12.4 Mobility in soil

Components:

pirimiphos-methyl:

Distribution among environmental compartments : Remarks: Low mobility in soil.

Stability in soil : Remarks: Not persistent in soil.

12.5 Results of PBT and vPvB assessment

Components:

pirimiphos-methyl:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

solvent naphtha (petroleum), light arom.:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

2-methylpropan-1-ol:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

12.6 Other adverse effects

Product:

Additional ecological information : Remarks: Classification of the product is based on the summation of the concentrations of classified components.

Components:

pirimiphos-methyl:

Additional ecological information : Remarks: No data available

solvent naphtha (petroleum), light arom.:

Additional ecological information : Remarks: No data available

calcium dodecylbenzenesulphonate:

Additional ecological information : Remarks: No data available

2-methylpropan-1-ol:

Additional ecological information : Remarks: No data available

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product** : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.
- Contaminated packaging** : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.
-

SECTION 14: Transport information

Land transport (ADR/RID)

- 14.1 UN number:** UN 1993
14.2 UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (SUBSTITUTED BENZENOID HYDROCARBONS AND PIRIMIPHOS-METHYL)
14.3 Transport hazard class(es): 3
14.4 Packing group: III
Labels: 3
14.5 Environmental hazards : Environmentally hazardous
- Tunnel restriction code:** D/E

Sea transport (IMDG)

- 14.1 UN number:** UN 1993
14.2 UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (SUBSTITUTED BENZENOID HYDROCARBONS AND PIRIMIPHOS-METHYL)
14.3 Transport hazard class(es): 3
14.4 Packing group: III
Labels: 3
14.5 Environmental hazards : Marine pollutant
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Air transport (IATA-DGR)

14.1 UN number: UN 1993
14.2 UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (SUBSTITUTED BENZENOID HYDROCARBONS AND PIRIMIPHOS-METHYL)
14.3 Transport hazard class(es): 3
14.4 Packing group: III
Labels: 3

14.6 Special precautions for user

none

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

Other regulations : Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

SECTION 16: Other information

Full text of H-Statements

H226 : Flammable liquid and vapour.
H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H318 : Causes serious eye damage.
H335 : May cause respiratory irritation.
H336 : May cause drowsiness or dizziness.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.
H411 : Toxic to aquatic life with long lasting effects.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Acute : Acute aquatic toxicity
Aquatic Chronic : Chronic aquatic toxicity
Asp. Tox. : Aspiration hazard
Eye Dam. : Serious eye damage

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Flam. Liq. : Flammable liquids
Skin Irrit. : Skin irritation
STOT SE : Specific target organ toxicity - single exposure
(Q)SAR - (Quantitative) Structure Activity Relationship; 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; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

CH / EN




Nguyen Hoang Son
Head of Marketing VN