

SAFETY DATA SHEET

Nexide CS

This safety data sheet complies with the requirements of:
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008

CHEMICAL NOTIFICATION = YES



SDS #: FO002177-FI-A
Revision date: 2020-06-22
Format: EU
Version 1

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

1.1. Product Identifier

Product Code(s) FO002177-FI-A
Product Name Nexide CS
Registration number 3561
Synonyms Gamma-cyhalothrin 60 g/L CS

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

Recommended Use: Insecticide,

Industry Code (TOL): A011 crop production, horticulture
Intended use code (KT): 38 plant protection products
The chemical can be used for general consumption: Not applicable
User group: Professional users

Restrictions on Use: Use as recommended by the label.

1.3. Details of the supplier of the safety data sheet

Supplier CHEMINOVA A/S, a subsidiary of FMC Corporation
Thyborønvej 78
DK-7673 Harbøre
Denmark
+45 9690 9690
Business Tax ID (Y-tunnus) = DK 12760043
SDS.Ronland@fmc.com

For further information, please contact:

Contact point (+45) 97 83 53 53 (24 h; for emergencies only)

1.4. Emergency telephone number

Emergency telephone In the event of an accident, call the general emergency number: 112
HUCH Poison Information Center 24h tel. 0800 147 111 or 09 471 977

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture Regulation (EC) No 1272/2008

Skin sensitization	Category 1B (H317)
Specific target organ toxicity (repeated exposure)	Category 2 (H373)

Acute aquatic toxicity	Category 1 (H400)
Chronic aquatic toxicity	Category 1 (H410)

2.2. Label elements

Hazard pictograms



Hazard Designation

Warning

Hazard Statements

H317 - May cause an allergic skin reaction

H373 - May cause damage to nervous system through prolonged or repeated exposure.

H410 - Very toxic to aquatic life with long lasting effects

EUH208: Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.

EUH401: Follow the instructions for use to avoid risks to human health and the environment.

Precautionary Statements

P102 - Keep out of reach of children

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P314 - Get medical advice/attention if you feel unwell

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P391 - Collect spillage

P501 - Surplus, unusable plant protection product is taken to a hazardous waste collection point and emptied, rinsed sales packaging is taken to an appropriate waste disposal point.

2.3. Other hazards

None of the ingredients in the product meets the criteria for being PBT or vPvB.

The product may cause hypersensitivity by skin contact in certain individuals.

Gamma-cyhalothrin is very toxic by inhalation and toxic if swallowed. In this formulation it is present in microencapsulated form, which will lower its toxicity, but inhalation of spray or mist must be avoided.

The product is very toxic to aquatic organisms.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

The product is a mixture, not a substance.

Chemical name	EC-No	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Gamma-cyhalothrin	435-840-0	76703-62-3	6.0	Acute Tox. 3 (H301) Acute Tox. 4 (H312) Acute Tox. 1 (H330) Skin Sens. 1A (H317) STOT RE (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
Naphtha (petroleum),	922-153-0	64742-94-5	3-8	Asp.Tox. 1 (H304)	01-2119451097-39

heavy aromatic				Carc. 2 (H351) Aquatic Chronic 2 (H411)	
1,2 benzisothiazolin-3-one	220-120-9	2634-33-5	0.025 (max.)	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4 (H302) Aquatic Acute 1 (H400)	No data available

Additional Information

Contains 1,2-Benzisothiazolin-3-one (CAS number 2634-33-5) at a level below the concentration limit for classification of the mixture as sensitising.

For the full text of the H- and EUH- phrases mentioned in this Section, see Section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice	In case of exposure, do not wait for symptoms to develop, but immediately start the recommended procedures below.
Eye Contact	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin Contact	Remove contaminated clothing and shoes. Do not start with flushing with water, but wipe off with dry cloth or using talcum powder, followed by washing with water and soap. Thereafter apply vitamin E cream or fatty skin care oil or cream. Call a poison control center or doctor for further treatment advice.
Inhalation	If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance. If breathing is irregular or stopped, administer artificial respiration. If breathing has stopped, contact emergency medical services immediately.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. If vomiting does occur, rinse mouth and drink fluids again. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

4.2. Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed	Gamma-cyhalothrin can cause feelings of burning, tingling or numbness in exposed areas (paraesthesia).
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4.3. Indication of any immediate medical attention and special treatment needed

Indication of immediate medical attention and special treatment needed, if necessary	As soon as a feeling of tingling is noted in any skin area (see section 11), it is recommended to immediately apply lidocaine or a vitamin E cream. For this purpose lidocaine or vitamin E cream should be available at the workplace. There is no specific antidote against this substance. Gastric lavage and/or administration of activated charcoal can be considered. After decontamination, treatment is supportive and symptomatic as for a general chemical. If allowed to penetrate the skin, acrinathrin may cause an irritation similar to sunburn. The substance will be drawn into a non-polar environment such as a fat based oil or cream. Vitamin E cream has been reported to be beneficial against other pyrethroid insecticides.
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Water is highly polar and will not decrease, but may prolong the irritation. Hot water may increase the pain.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Small Fire Dry chemical. Carbon dioxide (CO₂).

Large Fire Water spray. Foam.

Unsuitable extinguishing media

Avoid heavy hose streams.

5.2. Special hazards arising from the substance or mixture

None known.

Hazardous Combustion Products The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as. Hydrogen chloride, Hydrogen fluoride, Hydrogen cyanide, Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x), various chlorinated and fluorinated organic compounds.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate upwind. Dike to prevent runoff. Cool containers / tanks with water spray.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions

Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for Containment Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling

Handle in accordance with good industrial hygiene and safety practice. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling. Refer to Section 8.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Keep container tightly closed in a dry and well-ventilated place. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs. Keep/store only in original container. Keep in properly labeled containers. Protect against extremes of heat and cold.

7.3. Specific end use(s)

Specific Use(s)

The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

To our knowledge, personal exposure limits have not been established for the active ingredient in this product. Valmistaja suosittelee sisäistä arvoa 0,02 mg/m³ (8 tunnin LTEL-TWA).

Derived No Effect Level (DNEL) 0.034 mg/kg bw/dag.

Predicted No Effect Concentration (PNEC) 0.044 ng/L.

8.2. Exposure controls

Engineering measures

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal protective equipment

Eye/Face Protection

Wear face mask rather than goggles or safety glasses. The possibility of eye contact should be excluded. The work area and storage formulation area must have emergency eyewash and showers.

Hand Protection

Wear long chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown. Generally, however, the use of protective gloves will give only partial protection against dermal exposure. Small tears in the gloves and cross-contamination can easily occur. It is recommended to limit the work to be done manually and to change the gloves frequently. Be careful not to touch anything with contaminated gloves. Used gloves should be thrown out and not be reused.

Skin and Body Protection

Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of appreciable or prolonged exposure,

coveralls of barrier laminate may be required.

Respiratory Protection

The product does not automatically present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material which produces a heavy vapour or mist, workers should put on officially approved respiratory protection equipment with a universal filter type including particle filter.

Environmental exposure controls

The product should not be allowed to enter drains, water courses or the soil. Local authorities should be advised if significant spillages cannot be contained.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Suspension
Appearance	Liquid
Odor	Oily
Color	Beige
Odor threshold	No information available
pH	5.71 @ 23°C (1% solution in water)
Melting point/freezing point	< 0 °C
Boiling Point/Range	Not applicable (Decomposes)
Flash point	> 100 °C / > 200 °F Seta Closed Cup
Evaporation Rate	No information available
Flammability (solid, gas)	
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	Gamma-cyhalothrin : 1.03×10^{-7} Pa @ 20°C, 3.45×10^{-7} Pa @ 25°C
Vapor density	No information available
Specific gravity	No information available
Water solubility	Dispersible in water
Solubility in other solvents	Solubility of gamma-cyhalothrin @ 19°C in: ethyl acetate > 500 g/L heptane 30.7 g/L water 0.0021 mg/L @ 20°C Gamma-cyhalothrin : log Kow = 5.2 @ 25°C
Partition coefficient	> 400 °C
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	High viscosity
Viscosity, dynamic	High viscosity
Explosive properties	Not explosive
Oxidizing properties	Non-oxidizing

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Relative density	1.016 g/mL
Bulk density	No information available
K _{st}	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

None under normal use conditions

10.2. Chemical stability

Decomposes on heating. Direct local heating such as electric heating or by steam must be avoided.

Explosion data

Sensitivity to Mechanical Impact No information available.
Sensitivity to Static Discharge No information available.

10.3. Possibility of hazardous reactions

Hazardous polymerization

Hazardous polymerization does not occur.

Hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heating can release hazardous gases.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide (CO), Hydrogen chloride, Hydrogen fluoride, Nitrogen oxides (NOx), Hydrogen cyanide, various chlorinated and fluorinated organic compounds.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Product Information

Product does not present an acute toxicity hazard based on known or supplied information.

LD50 Oral	3257 mg/kg (rat) (Method: OECD 401) (Based on a similar product)
LD50 Dermal	> 5000 mg/kg (rat) (Method: OECD 402) (Based on a similar product)
LC50 Inhalation (dust)	> 2.31 mg/L 4 hr (rat) (Method: OECD 403) (Based on a similar product)

Skin corrosion/irritation	Slightly irritating. (Method: OECD 404). (Based on a similar product).
Serious eye damage/eye irritation	Mildly irritating. (Method: OECD 405). (Based on a similar product).
Sensitization	Sensitizer (Method 406) (Based on a similar product)
Mutagenicity	Gamma-cyhalothrin: Not mutagenic.

Carcinogenicity	The product contains no ingredients known to be carcinogenic.
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Reproductive toxicity	Gamma-cyhalothrin: No toxicity to reproduction in animal studies.
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STOT - single exposure	None known.
STOT - repeated exposure	Central Nervous System.

Neurological effects	Gamma-cyhalothrin can cause feelings of burning, tingling or numbness in exposed areas (paraesthesia).
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Symptoms	Gamma-cyhalothrin can cause feelings of burning, tingling or numbness in exposed areas (paraesthesia).
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Aspiration hazard	The product does not present an aspiration pneumonia hazard.
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Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

The ecotoxicity of the product is measured as:

- Kala: Kultainen orfe (Leuciscus idus)96-h LC50: 27.1 g/L
- Selkärangattomat: Daphnids (Daphnia magna Straus)48-h LC50: 12.8 g/L
- Levit: Vihreä levät (Selenastrum capricornutum Printz)72-h IC50: > 320 mg/L
- Lierot: Eisenia foetida foetida14-day LC50: > 1300 mg/kg kuiva maaperä
- Linnut: Bobwhite viiriäinen (Colinus virginianus)LD50: > 5000 mg/kg
- Hyönteiset: Mehiläiset (Apis mellifera)48-h LD50, meihin yhteyttä: 0.08 g/mehiläiset

12.2. Persistence and degradability

Gamma-cyhalothrin. Not readily biodegradable.

12.3. Bioaccumulative potential

Gamma-cyhalothrin: The substance has a potential for bioconcentration.

12.4. Mobility in soil

Mobility in soil

No information available.

Mobility

Gamma-cyhalothrin: Is not likely mobile in the environment.

12.5. Results of PBT and vPvB assessment

None of the ingredients in the product meets the criteria for being PBT or vPvB.

12.6. Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Residual waste

Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste. Disposal of waste and packaging must always be in accordance with all applicable local regulations.

According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not feasible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated containers and packages

It is recommended to consider possible ways of disposal in the following order:

1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.

2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (microencapsulated gamma-cyhalothrin)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazards	Not applicable
Environmental Hazard	Marine Pollutant
14.6 Special Provisions	Do not release to the environment
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	This product is not transported in bulk containers.

RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.(microencapsulated gamma-cyhalothrin)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Marine Pollutant
14.6 Special Provisions	Do not release to the environment

ADR/RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.(microencapsulated gamma-cyhalothrin)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Marine Pollutant
14.6 Special Provisions	Do not release to the environment

ICAO/IATA

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.(microencapsulated gamma-cyhalothrin)
14.3 Hazard class	9
14.4 Packing Group	III
Description	
14.5 Environmental Hazard	Marine Pollutant
14.6 Special Provisions	Do not release to the environment

Section 15: REGULATORY INFORMATION

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

National regulations	Seveso category (Dir. 2012/18/EU): dangerous for the environment.
	All ingredients in this product are covered by EU chemical legislation.

Young people under the age of 18 are not allowed to work with the substance.

European Union

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)
This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not Applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not Applicable

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Gamma-cyhalothrin 76703-62-3			X					
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X		X	X	X	X
1,2 benzisothiazolin-3-one 2634-33-5	X	X	X	X	X	X	X	X

15.2. Chemical safety assessment

A chemical safety assessment is not required to be included for this product.

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under sections 2 and 3

H301 - Toxic if swallowed
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H312 - Harmful in contact with skin
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H330 - Fatal if inhaled
H372 - Causes damage to organs through prolonged or repeated exposure
H373 - May cause damage to organs through prolonged or repeated exposure
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
EUH208: Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Legend

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS:	CAS (Chemical Abstracts Service)
Ceiling:	Maximum limit value:
DNEL:	Derived No Effect Level (DNEL)
EINECS:	EINECS (European Inventory of Existing Chemical Substances)
GHS:	Globally Harmonized System (GHS)
IATA:	International Air Transport Association (IATA)
ICAO:	International Civil Aviation Organization
IMDG:	International Maritime Dangerous Goods (IMDG)
LC50:	LC50 (lethal concentration)
LD50:	LD50 (lethal dose)
PBT:	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
RID:	Regulations Concerning the International Transport of Dangerous Goods by Rail
STEL:	Short term exposure limit
SVHC:	SVHC: Substances of Very High Concern for Authorization:
TWA:	time weighted average
vPvB:	very Persistent and very Bioaccumulative

Key literature references and sources for data

Data measured on the product are unpublished company data. Data on ingredients are available from published literature and can be found several places.

Revision date: 2020-06-22

Reason for revision: Format Change.

Training Advice This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

Disclaimer

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Prepared By:

FMC Corporation

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End of Safety Data Sheet