Elaboration date: 26.01.2006 *Date of previous version number:* 24.05.2016
Updated: 29.08.2016
Substance Code: 000000054995

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name:	NIPACIDE CI 15
Material number:	172116
Recommended use:	Biocidal product Preservatives for products during storage
Producer or Importer name:	Clariant India Limited Reliable Tech Park,
Address:	Gut No. 31, Village Elthan, Thane–Belapur Road, Airoli 400 708 Navi Mumbai, India
MSDS made by:	Clariant (México), S.A. de C.V.
Emergency phone:	+91 22 7125 1000
Transport Emergency phone:	01800-0021-400 24 hrs

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral)	:	Category 4
Skin corrosion	:	Category 1B
Serious eye damage	:	Category 1
Skin sensitisation	:	Category 1
Acute aquatic toxicity	:	Category 1
Chronic aquatic toxicity	:	Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements :
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Substance name : Aqueous preparation of isothiazolinones

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1)	55965-84-9	>= 0.6 - < 2.5

SECTION 4. FIRST AID MEASURES

General advice : Remove/Take off immediately all contaminated clothing.

If inhaled : If inhaled, remove to fresh air.
Get medical advice/ attention.

In case of skin contact : If skin irritation persists, call a physician.
In case of contact, immediately flush skin with soap and plenty of water.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Consult a physician.

If swallowed : Rinse mouth with water.
Do NOT induce vomiting.
Get medical advice/ attention.

Most important symptoms and effects, both acute and delayed : Treat symptomatically.
No additional risks are known.

Notes to physician	:	Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray jet Alcohol-resistant foam Dry powder Carbon dioxide (CO2)
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO) Nitrogen oxides (NOx) Carbon dioxide (CO2)
Specific extinguishing methods	:	Cool endangered containers with water spray jet. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	:	Self-contained breathing apparatus

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Wear full protective clothing and self-contained breathing apparatus.
Environmental precautions	:	Do not allow spilt product to enter soil or waterways If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Observe the general rules of industrial fire protection
Advice on safe handling	:	No special measures necessary if stored and handled as prescribed.
Hygiene measures	:	Use only in well-ventilated areas.
Technical	:	Store at a temperature between 5 to 40 °C

measures/Precautions

Materials to avoid	:	Do not store with strong oxidizing agents
Storage period	:	12 Months

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Personal protective equipment

Hand protection

Break through time	:	480 min
Glove thickness	:	0.7 mm
Remarks	:	Long-term exposure Impervious butyl rubber gloves
Break through time	:	30 min
Glove thickness	:	0.4 mm
Remarks	:	For short-term exposure (splash protection): Nitrile rubber gloves.
Remarks	:	These types of protective gloves are offered by various manufacturers. Please note the manufacturers´ detailed statements, especially about the minimum thickness and the minimum breakthrough time. Consider also the particular working conditions under which the gloves are being used.
Eye protection	:	Depending on the risk, wear sufficient eye protection (safety glasses with side protection or goggles, and if necessary, face shield.)
Skin and body protection	:	Depending on the degree of hazard, when handling corrosive substances, aprons, boots or full protective clothing made of suitable materials (e.g. rubberized or PVC-coated) must also be worn.
Protective measures	:	Avoid contact with skin and eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid
Colour	:	yellow
Odour	:	odourless
Odour Threshold	:	Not applicable
pH	:	2 - 4 (20 °C) Concentration: 100 %
Melting point	:	approx. 0 °C

Boiling point	:	approx. 100 °C
Flash point	:	Not applicable
Evaporation rate	:	not available
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Combustion number :		Not applicable
Vapour pressure	:	not tested.
Relative vapour density	:	not tested.
Density	:	approx. 1.02 g/cm3 (20 °C)
Bulk density	:	Not applicable
Solubility(ies)		
Water solubility	:	soluble (20 °C)
Solubility in other solvents	:	not tested. Solvent: fat
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	not tested.
Decomposition temperature	:	200 °C Heating rate : 3 K/min Method: DSC No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	20 mPa.s (20 °C) Method: Brookfield
Viscosity, kinematic	:	not tested.
Explosive properties	:	Not explosive
Oxidizing properties	:	not oxidizing
Minimum ignition energy	:	Not applicable
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	See section 10.3. "Possibility of hazardous reactions"
Chemical stability	:	Stable
Possibility of hazardous reactions	:	Reactions with oxidising agents. Reactions with reducing agents. Reactions with amines.
Conditions to avoid	:	Keep away from heat.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	When used and handled as intended, none.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 40 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Acute oral toxicity	:	LD50 (Rat, male and female): 49.6 - 75 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit, female): > 75 mg/kg LD50 (Rat, male and female): 141 mg/kg

Skin corrosion/irritation

Product:

Species: Rabbit
Result: Causes burns.
Remarks: Information based on the active ingredient.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Species: Rabbit
Result: Corrosive

Serious eye damage/eye irritation

Product:

Species: Rabbit
Result: Corrosive
Remarks: Information based on the active ingredient.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Species: rabbit eye
Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Product:

Species: Guinea pig
Result: Causes sensitisation.
Remarks: Information based on the active ingredient.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Test Type: Buehler Test
Exposure routes: Dermal
Species: Guinea pig
Result: Causes sensitisation.

Test Type: Respiratory system
Exposure routes: Inhalation
Species: Guinea pig
Method: Other
Result: Causes sensitisation.
GLP: yes

Germ cell mutagenicity

Product:

Germ cell mutagenicity - Assessment : No information available.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Genotoxicity in vitro : Test Type: In vitro study
Metabolic activation: with and without
Result: Conflicting results have been seen in different studies.

Genotoxicity in vivo	:	Test Type: Chromosome aberration test in vitro Species: Rat Cell type: Bone marrow Application Route: Oral Exposure time: <= 5 d Dose: 1-5 x <= 28 mg/kg Result: negative Test Type: Chromosome Aberration Test Species: Mouse Application Route: Oral Exposure time: <= 5 d Dose: 1-5 x <= 20 - 30 mg/kg Result: negative
Germ cell mutagenicity - Assessment	:	It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.

Carcinogenicity

Product:

Carcinogenicity - Assessment	:	No information available.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Carcinogenicity - Assessment	:	Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Product:

Reproductive toxicity - Assessment	:	No information available. No information available.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Effects on fertility	:	Species: Rat Sex: male and female Dose: 25 - 75 - 225 ppm Exposure time: 90 d Frequency of Treatment: daily Application Route: Drinking water Group: yes NOAEL: 16.3 - 24.7 mg/kg, F1: 16.3 - 24.7 mg/kg,

Method: OECD combined repeated dose and reproductive/developmental toxicity screening test
GLP: yes

Species: Rat
Sex: male and female
Dose: 30 - 100 - 300 ppm
Exposure time: 2 generations
Frequency of Treatment: daily
Application Route: Drinking water
Group: yes
NOAEL: 2.8 - 4.4 mg/kg,
F1: 22.7 - 28 mg/kg,
F2: 35.7 - 39.1 mg/kg,
Method: OECD Test Guideline 416
GLP: yes

Effects on foetal development : Species: Rat, male and female
Application Route: oral (gavage)
Group: yes
>= 19.6 mg/kg
<= 3.95 mg/kg
Number of exposures: daily
Method: Other
Species: Rabbit, male and female
Application Route: oral (gavage)
Group: yes
> 5.49 mg/kg
1.41 mg/kg
Number of exposures: daily
Method: Other

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity
Embryotoxicity classification not possible from current data.

STOT - single exposure

Product:

Remarks: not tested.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:

Remarks: not tested.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product:

Remarks: not tested.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Species: Rat, male and female
NOAEL: 16.3 - 24.7 mg/kg
Application Route: Drinking water
Exposure time: 90 d
Number of exposures: daily
Dose: 25 - 75 - 225 ppm
Group: yes
Method: Repeated Dose Toxicity (subchronic study)
GLP: yes

Species: Dog, male and female
NOAEL: 30 mg/kg
Application Route: oral (feed)
Exposure time: 90 d
Number of exposures: daily
Dose: 101 - 363 - 555 ppm in diet
Group: yes
Method: OECD Test Guideline 409
GLP: yes

Species: Rat, male and female
NOAEL: <= 0.104 mg/kg
Application Route: Skin contact
Exposure time: 91 d
Number of exposures: daily
Dose: 0,75 - 3,75 - 18,75 mg/kg
Group: yes
Method: Repeated Dose Toxicity (subchronic study)
GLP: yes

Species: Rat, male and female
NOAEL: 0.00034 mg/l
Application Route: Inhalation
Exposure time: 91 d
Number of exposures: 6 h per day, 5 days per week
Dose: 0,34 - 1,15 - 2,64 mg/m3
Group: yes
Method: OECD Test Guideline 413

GLP: yes

Aspiration toxicity

Product:

no data available

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

No aspiration toxicity classification

Further information

Product:

Remarks: The classification was made by the conventional (calculation) method of the CLP Regulation (EC) No 1272/2008.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.28 mg/l Exposure time: 96 h Remarks: The values mentioned are those of the active ingredient.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.16 mg/l Exposure time: 48 h Remarks: The values mentioned are those of the active ingredient.
Toxicity to algae	:	ErC50 (Selenastrum capricornutum (green algae)): 0.027 mg/l Exposure time: 72 h Remarks: The values mentioned are those of the active ingredient.
Toxicity to bacteria	:	Remarks: not tested.

Further information

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 99.0505 %

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Toxicity to fish	:	EC50 (Oncorhynchus mykiss (rainbow trout)): 0.22 mg/l Exposure time: 96 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.1 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 0.048 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 0.0012 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 0.098 mg/l Exposure time: 28 d Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.004 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to bacteria	:	EC50 (activated sludge): 7.92 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Toxicity to soil dwelling organisms	:	Remarks: Not applicable
Plant toxicity	:	Remarks: Not applicable
Sediment toxicity	:	Remarks: Not applicable
Toxicity to terrestrial organisms	:	Remarks: Not applicable

Persistence and degradability

Product:

Biodegradability	:	Remarks: Biodegradable

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Biodegradability	:	aerobic Inoculum: activated sludge Biochemical Oxygen Demand (BOD) Result: Readily biodegradable. Biodegradation: > 60 % Method: OECD Test Guideline 301D aerobic

Inoculum: activated sludge
Test substance
Result: Readily biodegradable.
Biodegradation: 100 %
Method: OECD Test Guideline 302B

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: not tested.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Bioaccumulation : Bioconcentration factor (BCF): 3.6
Method: calculated
Remarks: Does not accumulate in organisms.

Partition coefficient: n-octanol/water : log Pow: -0.71 - 0.75
Method: OECD Test Guideline 107

Mobility in soil

Product:

Distribution among environmental compartments : Remarks: not tested.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Distribution among environmental compartments : Remarks: no data available

Other adverse effects

Product:

Environmental fate and pathways : Remarks: not tested.

Results of PBT and vPvB assessment : Remarks: no data available

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.
The classification was made by the conventional (calculation) method of the CLP Regulation (EC) No 1272/2008.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Environmental fate and pathways	:	no data available
Results of PBT and vPvB assessment	:	This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
Additional ecological information	:	The product should not be allowed to enter drains, water courses or the soil.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	In accordance with regulations for hazardous waste, must be taken to a hazardous waste disposal site
Contaminated packaging	:	Regulations concerning reuse or disposal of used packaging materials must be observed.

SECTION 14. TRANSPORT INFORMATION

SCT:

Proper Shipping Name:	Corrosive liquid, acidic, organic, n.o.s., solution
Risk:	8
Packing group:	II
UN Number:	UN 3265
Primary risk:	8

Remarks:	Shipment permitted
Hazard inducer(s):	Chloromethylisothiazolinone Methylisothiazolinone

IATA

Proper shipping name:	Corrosive liquid, acidic, organic, n.o.s., solution
Class:	8
Packing group:	II
UN/ID number:	UN 3265
Primary risk:	8
Remarks	Shipment permitted
Hazard inducer(s):	Chloromethylisothiazolinone Methylisothiazolinone

IMDG

Proper shipping name:	Corrosive liquid, acidic, organic, n.o.s., solution
Class:	8
Packing group:	II
UN no.	UN 3265
Primary risk:	8
Remarks	Shipment permitted
Hazard inducer(s):	Chloromethylisothiazolinone Methylisothiazolinone
Marine pollutant:	Marine Pollutant
EmS :	F-A S-B

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

Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION

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

Observe national specific workplace risk prevention and health regulations.
Take note of the national regulations on the protection of young people at work.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Further information

Other information : Observe national and local legal requirements

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