SAFETY DATA SHEET

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Spectrus NX1100

Infosafe No.:GBZ98
Version No.:1.0
ISSUED Date:22/07/2013
ISSUED by GE Betz Pty Limited

CLASSIFIED AS HAZARDOUS

1. IDENTIFICATION

GHS Product Identifier
Spectrus NX1100

Product Code
G9949

Product Type
Biocide.

Company Name
GE Betz Pty Limited (ABN 84 001 221 941)

Address
103 Raubers Road Northgate
QLD 4013 Australia

Telephone/Fax Number
Tel: 1800 064 140 (AUS) 0800 945635 (NZ)
Fax: 1800 648 530 (AUS) 0800 945634(NZ)

Emergency phone number
1800 638 556 (Aus) 0800 154 666 (NZ)

Emergency Contact Name
Chemist

Product Safety Guide
This product should only be used in accordance to the procedures GE Betz has established for a specific application. For a technical advice contact GE Betz.

Recommended use of the chemical and restrictions on use
Biocide.

Other Information
Off line MSDS are uncontrolled documents, GE Betz most up to date MSDS can be accessed via internet on www.msdsonline.com.au/gebetz/
The information herein is to the best of our knowledge, correct and complete. It describes the safety requirements for this product and should not be construed as guaranteeing specific properties. Since methods and conditions are beyond our control we do not accept liability for any damages resulting from the use of, or reliance on, this information in inappropriate contexts.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture
Physical hazards:
Corrosive to metals Category 1

Health hazards:
Acute toxicity (Oral) Category 4
Acute toxicity (Dermal) Category 5
Acute toxicity (Inhalation) Category 2
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1
Skin sensitizer Category 1
Specific target organ toxicity - single exposure Category 3 respiratory tract irritation

Environmental hazards:
Acute aquatic toxicity Category 2
Chronic aquatic toxicity Category 2

Signal Word (s)
Danger

Hazard Statement (s)
May be corrosive to metals. Harmful if swallowed. May be harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Toxic if inhaled. May cause respiratory irritation. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Pictogram (s)
Skull and crossbones, Corrosion, Exclamation mark, Environment

Precautionary statement – Prevention
Keep out of reach of children. Read label before use. Read Safety Data Sheet before use. Keep only in original container. Do not breathe mist or vapor. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

Precautionary statement – Response
IF SWALLOWED:
Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting.
Immediately seek medical attention. Dilute contents of stomach using 3-4 glasses milk or water.
IF ON SKIN:
URGENT! Wash thoroughly with soap and water. Remove contaminated clothing.
Seek immediate medical attention. Thoroughly wash clothing before reuse.
IF INHALED:
Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Seek immediate medical attention.
IF IN EYES:
URGENT! Immediately flush eyes with plenty of low pressure water for at least 20 minutes while removing contact lenses. Hold eyelids open. Seek immediate medical advice.

Precautionary statement – Storage
Keep containers closed when not in use. Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use. Use approved containers only. Do not store in steel or aluminium containers.

Precautionary statement – Disposal
Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor. Normally suitable for disposal by approved waste disposal agent.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization
Liquid

Information on Composition
Spectrus NX1100 is a proprietary, water based blend of non-oxidising biocides which is used to control microbial populations in open evaporative cooling systems.

Ingredients

Name	CAS	Proportion	Hazard	Hazard Statement (s)
2- Bromo- 2- nitropropane- 1, 3- diol	52- 51- 7	5- 10 %		
5- Chloro- 2- methyl- 4- isothiazolin- 3- one mixture with 2- methyl- 4- isothiazolin- 3- one (3:1)	55965- 84- 9	1- 5 %		
Magnesium Chloride	7786- 30- 3	1- 5 %		
Magnesium Nitrate	10377- 60- 3	1- 5 %	Xi	
Water and other substances not considered to be hazardous	Mixture	75- 92 %		

4. FIRST-AID MEASURES

Inhalation
Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Seek immediate medical attention.

Ingestion
Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting.
Immediately seek medical attention. Dilute contents of stomach using 3-4 glasses milk or water.

Skin
URGENT! Wash thoroughly with soap and water. Remove contaminated clothing.
Seek immediate medical attention. Thoroughly wash clothing before reuse.

Eye contact
URGENT! Immediately flush eyes with plenty of low pressure water for at least 20 minutes while removing contact lenses. Hold eyelids open. Seek immediate medical advice.

First Aid Facilities
Eye wash station, safety shower and normal washroom facilities.

Advice to Doctor
Material is corrosive. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Fire Fighting Measures
Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

Suitable Extinguishing Media
Dry chemical, carbon dioxide, foam or water

Hazards from Combustion Products
Oxides of carbon, nitrogen, and sulphur evolved in fire. Hydrogen chloride gas (HCl). Hydrogen bromide.

Hazchem Code
2XE

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal
PROTECTION AND SPILL CONTAINMENT:
Wear protective clothing, gloves and safety goggles. Avoid inhalation of vapors and spray mists. Ventilate area, use specified protective equipment. Contain and absorb on absorbent material. DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material. Decontaminate floor residual with 10% metabisulfite solution. Apply solution to the spill area at a ratio of 10:1 solution:residual spill to deactivate active ingredient. Flush the spill area with copious amounts of water to CHEMICAL sewer/collection in accordance with local procedures, permits and regulations.
DISPOSAL INSTRUCTIONS:
Prevent from entering sewers or the immediate environment. Do not empty into drains, dispose of this material and its container to hazardous or special waste collection point. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Avoid contact with skin and eyes. Corrosive to skin and to the eyes. Do not breathe vapors or spray mist.

Conditions for safe storage, including any incompatabilities
Keep containers closed when not in use. Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use. Use approved containers only. Do not store in steel or aluminium containers.

Corrosiveness
Corrosive to skin and eyes. Corrosive to steel.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values
No exposure limits have been established for the components of this product.

Appropriate Engineering Controls
Adequate ventilation to maintain air contaminants below exposure limits.

Respiratory Protection
Avoid breathing of vapours, mists or spray. Select and use respirators in accordance with AS/NZS 1715/1716. When mists or vapours exceed the exposure standards then the use of the following is recommended: Half facepiece respirator with organic vapour (Type A) and dust/mist (Type P1) filters. Filter capacity and respirator type depends on exposure levels."

Eye Protection
Splash proof chemical goggles and faceshield.

Hand Protection
Gauntlet type butyl gloves (Protection against unintentional short-term contact). Wash off after each use. Replace as necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form
Liquid

Appearance
Colourless to Yellow Green

Odour
None

Freezing Point
-4 degrees Celsius

Boiling Point
104 degrees Celsius

Solubility in Water
100%

Specific Gravity
1.107 @ 21 degrees Celsius

pH
3.0 (approx)

Vapour Pressure
~18.0mm Hg

Vapour Density (Air=1)
< 1.00

Evaporation Rate
< 1.00 (Ether = 1)

Physical State
Liquid

Viscosity
10cps @ 21 degrees Celsius

Pour Point
-2 degrees Celsius

Flash Point
> 93 degrees Celsius P-M(CC)

10. STABILITY AND REACTIVITY

Chemical Stability
Stable under normal storage conditions.

Conditions to Avoid
Protect from freezing.

Incompatible materials
Contact with water reactive compounds may cause fire or explosion. Contact with strong bases may cause a violent reaction releasing heat. Avoid contact with strong reducing agents.

Hazardous Decomposition Products
Oxides of carbon, nitrogen, and sulphur evolved in fire. Hydrogen chloride gas (HCl). Hydrogen bromide.

Hazardous Polymerization
Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity - Oral
Acute Oral LD50 Rat: 1030 mg/kg (GHS Category 4)

Acute Toxicity - Inhalation
Acute Inhalation LC50 Rat: 0.066 - 0.51 mg/L 4 Hour (GHS Category 2)

Acute Toxicity - Dermal
Acute Oral LD50 Rat: 1030 mg/kg (GHS Category 4)

Ingestion
May cause severe irritation or burning of the gastrointestinal tract.

Inhalation
Mists/aerosols cause irritation to the upper respiratory tract. Toxic by inhalation.

Skin
Primary route of exposure; Corrosive to skin. Skin sensitizer with delayed onset of symptoms.

Eye
Corrosive to eyes.

Chronic Effects
Skin sensitizer with delayed onset of symptoms.

12. ECOLOGICAL INFORMATION

Ecological information
Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

Persistence and degradability
COD (mgO2/g) 78 (calculated data)
BOD 5 (mgO2/g) 2 (calculated data)
BOD 28 (mgO2/g) 4 (calculated data)
Closed Bottle Test (% Degradation in 28 days) 2 (calculated data)
Zahn-Wellens Test (% Degradation in 28 days) 8 (calculated data)
TOC (mg C/g) 29 (calculated data)

Information on Ecological Effects
Nutrients: N = 8.03 mg/g

Acute Toxicity - Fish
LC50 Fathead Minnow: 3.5 mg/L 96 hour
LC50 Mysid Shrimp: 40.5 mg/L 48 hour
LC50 Rainbow Trout: 7.2 mg/L 96 hour
LC50 Sheepshead Minnow: 26.7 mg/L 96 hour
NOEL Fathead Minnow: 1.8 mg/L 96 hour
NOEL Mysid Shrimp: 18 mg/L 48 hour
NOEL Rainbow Trout: 3.1 mg/L 96 hour
NOEL Sheepshead Minnow: 15.5 mg/L 96 hour

Acute Toxicity - Daphnia
LC50 Ceriodaphnia: 4.7 mg/L 48 hour
LC50 Daphnia magna: 5 mg/L 48 hour
NOEL Ceriodaphnia: 0.63 mg/L 48 hour
NOEL Daphnia magna: 2.5 mg/L 48 hour

13. DISPOSAL CONSIDERATIONS

Waste Disposal
Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor. Normally suitable for disposal by approved waste disposal agent.

14. TRANSPORT INFORMATION

U.N. Number
2927

UN proper shipping name
TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.(5-chloro-2-methyl-4-isothiazolin-3-one, 2-methyl-4-isothiazolin-3-one, 2-Bromo-2-nitropropane-1,3-diol mixture)

Transport hazard class(es)
6.1

Sub.Risk
8

Packing Group
II

Hazchem Code
2XE

Packaging Method
3.8.6.1RT7,RT8

EPG Number
6J4

IERG Number
36

UN Number (Air Transport, ICAO)
2927

IATA/ICAO Proper Shipping Name
5-chloro-2-methyl-4-isothiazolin-3-one, 2-methyl-4-isothiazolin-3-one, 2-Bromo-2-nitropropane-1,3-diol mixture

IATA/ICAO Hazard Class
6.1

IATA/ICAO Packing Group
II

IATA/ICAO Sub Risk
8

IMDG UN No
2927

IMDG Hazard Class
6.1

IMDG Pack. Group
II

IMDG Subsidiary Risk
8

IMDG Description
5-chloro-2-methyl-4-isothiazolin-3-one, 2-methyl-4-isothiazolin-3-one, 2-Bromo-2-nitropropane-1,3-diol mixture

15. REGULATORY INFORMATION

HSNO Approval Number
HSNO Approval Number: HSR002686
HSNO Classification: 6.1C, 6.5B, 8.2C, 8.3A, 9.1A, 9.1B
Group Standard: Water Treatment Chemicals (Toxic [6.1], Corrosive) Group Standard 2006

Hazard Category
Toxic,Harmful,Corrosive,Irritant,Dangerous for the environment

Australia (AICS)
All components are included in the Australian Inventory of Chemical Substances and the New Zealand Inventory of Chemical Substances.

Component [5-chloro-2-methyl-4-isothiazolin-3-one mixture with 2-methyl-4-isothiazolin-3-one (3:1)] is included as:
3(2H)-Isothiazolone, 5-chloro-2-methyl- CAS No.: 26172-55-4
and
3-Isothiazolone, 2-methyl- CAS No.: 2682-20-4

16. OTHER INFORMATION

Contact Person/Point
New Zealand address:
Level 1, 8 Tangihua Street, Quay Plaza, Auckland

Other Information
Disclaimer:
The information herein is to the best of our knowledge, correct and complete. It describes the safety requirements for this product and should not be construed as guaranteeing specific properties. Since methods and conditions are beyond our control we do not accept liability for any damages resulting from the use of, or reliance on, this information in inappropriate contexts.

END OF SDS