

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/28/2015

Reviewed on 05/07/2018

1 Identification

- **Product identifier**
- **Trade name:** AXI-THERM PROTECT 1
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use**
 SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Product category** PC37 Water treatment chemicals
- **Process category**
 PROC1 Use in closed process, no likelihood of exposure
 PROC2 Use in closed, continuous process with occasional controlled exposure
 PROC3 Use in closed batch process (synthesis or formulation)
 PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises
- **Environmental release category**
 ERC4 Industrial use of processing aids in processes and products, not becoming part of articles
- **Application of the substance / the mixture** Antiscale and anticorrosive additive for heating system
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 FORIDRA srl – S.S. 16 Adriatica, 17/A
 60022 Castelfidardo (AN) – Italy. info@foridra.it
- **Distributor:**
 AXIOM Industries Limited - 3603 BURRON AVENUE
 SASKATOON, SK S7P 0E4 – CANADA
 PHONE: (306) 651-1815 – EMAIL: info@axiomind.com
- **Information department:** product safety department, see section 16
- **Emergency telephone number:**
 PERS 1-800-633-8253

2 Hazard(s) identification

- **Classification of the substance or mixture**
 The product is not classified according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard-determining components of labeling:** Not applicable
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**
- | | | |
|------------|---|----------------|
| HEALTH | 0 | Health = 0 |
| FIRE | 1 | Fire = 1 |
| REACTIVITY | 0 | Reactivity = 0 |

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of substances listed below with nonhazardous

- **Dangerous components:**

102-71-6	2,2',2"-nitrilotriethanol	1-5%
7631-95-0	Sodium molybdate	1-5%
57-55-6	propane-1,2-diol	1%

4 First-aid measures

- **Description of first aid measures**
- **General information:**
No special measures required.
rescuers must be well equipped
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Take off immediately all contaminated clothing.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Firefighters, and others exposed, wear self-contained breathing apparatus.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.

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- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
The product is stable for 24 months, if stored at room temperature.
None.
- **Storage class:** 12
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

102-71-6 2,2',2''-nitrilotriethanol

EL Long-term value: 5 mg/m³ Long-
EV term value: 3.1 mg/m³, 0.5 ppm

7631-95-0 Sodium molybdate

EL Long-term value: 0.5 mg/m³
as Mo; respirable

57-55-6propane-1,2-diol

EV Long-term value: 155* 10** mg/m³, 50* ppm
*vapour and aerosol; **aerosol only

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Neoprene gloves
- **Material of gloves:** Neoprene gloves
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.
- **Body protection:** Light weight protective clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Fluid
Color: Light yellow
Odor: Light

pH-value at 20 °C: 8

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<ul style="list-style-type: none"> Change in condition Melting point/Melting range: -1 °C Boiling point/Boiling range: 100 °C 	
Flash point:	180 °C
Flammability (solid, gaseous): Not applicable.	
Ignition temperature:	305 °C
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Vapor pressure at 20 °C:	23 hPa
Density at 20 °C:	1.04 g/cm ³
Solubility in / Miscibility with	
Water:	Fully miscible.
Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

LD/LC50 values that are relevant for classification:		
102-71-6 2,2',2''-nitrioltriethanol		
Oral	LD50	8000 mg/kg (rat)
57-55-6propane-1,2-diol		
Oral	LD50	2000 mg/kg (rat)
Dermal	LD50	20800 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

102-71-6/ 2,2',2''-nitritotriethanol

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

Note: no ecological testing was carried out on the product. Data are based on the properties of the main components.

- **Aquatic toxicity:**

102-71-6 2,2',2''-nitritotriethanol

LC50/96h >10000 mg/l (leuciscus idus m.)

7631-95-0 Sodium molybdate

EC 50/48h >100 mg/l (daphnia)

EC50/72h >100 mg/l (Selenastrum capricornutum)

LC50/96h >100 mg/l (Oncorhynchus mykiss)

57-55-6propane-1,2-diol

EC 50/48h 43500 mg/l (daphnia)

LC50/96h 51600 mg/l (Oncorhynchus mykiss)

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:** Smaller quantities can be disposed of with household waste.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

• UN-Number DOT, TDG, ADN, IMDG, IATA	Void
• UN proper shipping name DOT, TDG, ADN, IMDG, IATA	Void
• Transport hazard class(es) DOT, TDG, ADN, IMDG, IATA Class	Void
• Packing group DOT, TDG, IMDG, IATA	Void
• Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
• Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	Void

15 Regulatory information

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

• Section 355 (extremely hazardous substances):

None of the ingredients is listed.

• Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

• TSCA (Toxic Substances Control Act):

102-71-6 2,2',2"-nitrilotriethanol

57-55-6 propane-1,2-diol

7631-95-0 Sodium molybdate

7732-18-5 water, distilled, conductivity or of similar purity

• Proposition 65

• Chemicals known to cause cancer:

None of the ingredients is listed.

• Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

• Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

• Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

• Cancerogenity categories

• EPA (Environmental Protection Agency)

None of the ingredients is listed.

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- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

102-71-6 2,2',2"-nitrilotriethanol

57-55-6 propane-1,2-diol

7631-95-0 Sodium molybdate

7732-18-5 water, distilled, conductivity or of similar purity

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

102-71-6 2,2',2"-nitrilotriethanol

57-55-6 propane-1,2-diol

- **GHS label elements** See section 2

- **Hazard pictograms** Void

- **Signal word** Void

- **Hazard statements** Void

- **National regulations:**

- **Other regulations, limitations and prohibitive regulations** Not applicable

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Research and development department

- **Contact:** ufficiotecnico@foridra.it

- **Date of preparation / last revision** 07/28/2015 / 3

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS:

European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS:

Hazardous Materials Identification System (USA) LC50:

Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

- *** Data compared to the previous version altered.**