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Information Sheet

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

1.1. Product identifier.

Code: TCA

Product name. TOPTHERM CLEAN CAL

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

Intended use. Antifouling for thermal plants. Proffessional Use

1.3. Details of the supplier of the safety data sheet.

Name. Foridra S.r.I.
Full address. SS 16 Adriatica 17/A
District and Country. 60022 Castelfidardo (AN)

Italia

Tel. 0717211048 Fax. 0717819950

e-mail address of the competent person.

responsible for the Safety Data Sheet. ufficiotecnico@foridra.it

1.4. Emergency telephone number.

For urgent inquiries refer to. Centro Antiveleni Ospedale Niguarda +39 0266101029

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication:

2.2. Label	elements.
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Hazard pictograms: --

Signal words: --

Hazard statements:

--

Precautionary statements:

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2.3. Other hazards.

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On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions Regulation (EU) 1272/2008 (CLP) (and subsequent amendments and supplements) in such quantities as to require the statement.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown. For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

 ${\bf 5.2.}\ {\bf Special\ hazards\ arising\ from\ the\ substance\ or\ mixture.}$

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HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.

HAND PROTECTION

None required.

SKIN PROTECTION

None required.

EYE PROTECTION

None required.

RESPIRATORY PROTECTION

None required, unless indicated otherwise in the chemical risk assessment.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance liquid Colour vellowish Odour characteristic Odour threshold. Not available. Melting point / freezing point. Not available. Initial boiling point. 100 °C. Boiling range. Not available. Flash point. Not applicable. Evaporation Rate Not available. Flammability of solids and gases Not available. Lower inflammability limit. Not available. Upper inflammability limit. Not available. Not applicable. Lower explosive limit. Upper explosive limit. Not applicable. Vapour pressure. Not available. Vapour density Not available. Relative density. Not available. Solubility miscible

Revision nr. 2 Foridra S.r.l. Dated 14/04/2017 Printed on 14/04/2017 **TOPTHERM CLEAN CAL** Page n. 5/9 Partition coefficient: n-octanol/water Not available. Auto-ignition temperature. Not applicable. Decomposition temperature. Not available. Not available. Viscosity Explosive properties Not available. Oxidising properties Not available. 9.2. Other information. Information not available. SECTION 10. Stability and reactivity. 10.1. Reactivity. There are no particular risks of reaction with other substances in normal conditions of use. 10.2. Chemical stability. The product is stable in normal conditions of use and storage. 10.3. Possibility of hazardous reactions. No hazardous reactions are foreseeable in normal conditions of use and storage. 10.4. Conditions to avoid. None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

ACUTE TOXICITY.

LC50 (Inhalation - vapours) of the mixture: Not classified (no significant component).

LC50 (Inhalation - mists / powders) of the mixture: Not classified (no significant component).

LD50 (Oral) of the mixture: Not classified (no significant component).

LD50 (Dermal) of the mixture: Not classified (no significant component).

SKIN CORROSION / IRRITATION.

Does not meet the classification criteria for this hazard class.

SERIOUS EYE DAMAGE / IRRITATION.

Does not meet the classification criteria for this hazard class.

RESPIRATORY OR SKIN SENSITISATION.

Does not meet the classification criteria for this hazard class.

GERM CELL MUTAGENICITY.

Does not meet the classification criteria for this hazard class.

CARCINOGENICITY.

Does not meet the classification criteria for this hazard class.

REPRODUCTIVE TOXICITY.

Does not meet the classification criteria for this hazard class.

STOT - SINGLE EXPOSURE.

Does not meet the classification criteria for this hazard class.

STOT - REPEATED EXPOSURE.

Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD.

Does not meet the classification criteria for this hazard class.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

Information not available.

12.2. Persistence and degradability.

Information not available.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

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12.6. Other adverse effects.			
Information not available.			
SECTION 13. Disposal considerations.			
13.1. Waste treatment methods.			
Reuse, when possible. Neat product residues should be considered special non-hazardous waste. Disposal must be performed through an authorised waste management firm in compliance with national and loc	cal regulations		
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. CONTAMINATED PACKAGING			
Contaminated packaging must be recovered or disposed of in compliance with national waste management reg	ulations.		
SECTION 14. Transport information.			
CEOTION 14. Transport information.			
The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Go	oods by Road (ADR) and by Rail (RID), of		
the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (I	ATA) regulations.		
14.1. UN number.			
Net applicable			
Not applicable.			
14.2. UN proper shipping name.			
Not applicable.			
14.3. Transport hazard class(es).			
Not applicable.			
14.4. Packing group.			
Not applicable.			
14.5. Environmental hazards.			
Not applicable.			

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14.6. Special precautions for user.	
Not applicable.	
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code.	
Information not relevant.	
SECTION 15. Regulatory information.	
SECTION 13. Regulatory information.	
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.	
Seveso Category - Directive 2012/18/EC:	
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.	
rectioner relating to the product or contained educations paradam to runner swift to 20 Hogaliation 1007/2000.	
None.	
Substances in Candidate List (Art. 59 REACH).	
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.	
Substances subject to authorisarion (Annex XIV REACH).	
None.	
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:	
None.	
Substances subject to the Rotterdam Convention:	
None.	
Substances subject to the Stockholm Convention:	
None.	
Healthcare controls.	
Information not available.	
15.2. Chemical safety assessment.	

No chemical safety assessment has been processed for the mixture and the substances it contains.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information.

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- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

- 1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 2015/1221 (VII Atp. CLP) of the European Parliament
- The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:

01 / 02 / 04 / 09 / 11 / 14 / 15.