

Therma Tech NNT-5000C TC

Version Number 1.0
Revision Date 10/24/2002

Page 1 of 6
Print Date 11/6/2011

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
33587 Walker Road, Avon Lake, OH 44012

NON-EMERGENCY TELEPHONE : Product Stewardship (440)-930-1395
Emergency telephone number : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**

Product name : Therma Tech NNT-5000C TC
Product code : EM10002784
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Components	CAS-No.	Weight %
Titanium dioxide	13463-67-7	1 - 5
Boron oxide (B2O3)	1303-86-2	1 - 5

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating or processing. The end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Ingestion, Skin contact

Acute exposure

Inhalation : Resin particles, like other inert materials, can be mechanically irritating.
Ingestion : May be harmful if swallowed.
Eyes : Resin particles, like other inert materials, are mechanically irritating to eyes.
Skin : Experience shows no unusual dermatitis hazard from routine handling.

Chronic exposure : Refer to Section 11 for Toxicological Information.

Medical Conditions : None known.

Aggravated by Exposure:

Therma Tech NNT-5000C TC

Version Number 1.0

Revision Date 10/24/2002

Page 2 of 6

Print Date 11/6/2011

4. FIRST AID MEASURES

- Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist, or in all cases of doubt, seek medical advice.
- Ingestion : Do not induce vomiting without medical advice. When symptoms persist, or in all cases of doubt, seek medical advice.
- Eyes : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.
- Skin : Wash off with soap and plenty of water. If skin irritation persists seek medical attention.

5. FIRE-FIGHTING MEASURES

- Flash point : Not applicable
- Flammable Limits
- Upper explosion limit : Not applicable
 - Lower explosion limit : Not applicable
- Autoignition temperature : Not relevant
- Suitable extinguishing media : water, dry powder, foam, carbon dioxide (CO₂).
- Special Fire Fighting Procedures : Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
- Unusual Fire/Explosion Hazards : None

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
- Environmental precautions : Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.
- Methods for cleaning up : Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

7. HANDLING AND STORAGE

- Handling : Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.
- Storage : Keep containers dry and tightly closed to avoid moisture absorption

MATERIAL SAFETY DATA SHEET

Therma Tech NNT-5000C TC

Version Number 1.0

Page 3 of 6

Revision Date 10/24/2002

Print Date 11/6/2011

and contamination. Keep in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Respiratory protection : No personal respiratory protective equipment normally required.
- Eye/Face Protection : Safety glasses with side-shields.
- Hand protection : Protective gloves.
- Skin and body protection : Long sleeved clothing.
- Additional Protective Measures : Safety shoes.
- General Hygiene Considerations : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- Engineering measures : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

Exposure limit(s)

Components	Value	Exposure time	Exposure type	List:
Titanium dioxide	10 mg/m ³	Time Weighted Average (TWA):	Dust.	ACGIH
Titanium dioxide	15 mg/m ³	PEL:	Total dust.	OSHA Z1
Boron oxide (B ₂ O ₃)	10 mg/m ³	Time Weighted Average (TWA):		ACGIH
Boron oxide (B ₂ O ₃)	15 mg/m ³	PEL:	Total dust.	OSHA Z1
Boron oxide (B ₂ O ₃)	10 mg/m ³	Time Weighted Average (TWA):		MX OEL
	20 mg/m ³	Short Term Exposure Limit (STEL):		MX OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | | | |
|---------------------|------------------|------------------|-------------------|
| Form | : Solid | Evaporation rate | : Not applicable. |
| Appearance | : Pellets, slabs | Specific Gravity | : Not determined |
| Color | : NO PIGMENT | Bulk density | : Not established |
| Odor | : Very faint | Vapor pressure | : Not applicable |
| Melting point/range | : Not determined | Vapor density | : Not applicable |
| Boiling Point: | : Not applicable | pH | : Not applicable |
| Water solubility | : Insoluble | | |

10. STABILITY AND REACTIVITY

- Stability : Stable.

MATERIAL SAFETY DATA SHEET

Therma Tech NNT-5000C TC

Version Number 1.0

Page 4 of 6

Revision Date 10/24/2002

Print Date 11/6/2011

- Hazardous Polymerization : Will not occur.
- Conditions to avoid : To avoid thermal decomposition, do not overheat.
- Incompatible Materials : Strong acids, oxidizing and reducing agents.
- Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
1303-86-2	Boron oxide (B ₂ O ₃)	Irritant	Eyes, Skin.

LC50 / LD50

This product contains the following components which in their pure form have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
1303-86-2	Boron oxide (B ₂ O ₃)	Oral LD50	3,163 mg/kg	mouse

12. ECOLOGICAL INFORMATION

- Persistence and degradability : Not readily biodegradable.
- Environmental Toxicity : Chemicals are not readily available as they are bound within the matrix of the polymer.
- Bioaccumulation Potential : Chemicals are not readily available as they are bound within the matrix of the polymer.
- Additional advice : Not applicable

13. DISPOSAL CONSIDERATIONS

- Product : Like most thermoplastics the product can be recycled. Where possible, recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
- Contaminated packaging : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial

MATERIAL SAFETY DATA SHEET

Therma Tech NNT-5000C TCVersion Number 1.0
Revision Date 10/24/2002Page 5 of 6
Print Date 11/6/2011

and local regulations.

14. TRANSPORT INFORMATION

U.S. DOT Classification : Not regulated for transportation.

ICAO/IATA : Not regulated for transportation.

IMO / IMDG : Not regulated for transportation.

15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.

TSCA Status : All components of this product are listed on the TSCA inventory or are exempt.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Not applicable

California Proposition 65 : This product does not contain a substance listed by California Prop 65.

Canadian Regulations:

WHMIS Classification : D2B

WHMIS Ingredient Disclosure List

CAS-No.
1303-86-2

DSL : Listed.

National Inventories:

Australia AICS : Listed.

China IECS : Listed.

Europe EINECS : Not determined.

MATERIAL SAFETY DATA SHEET

Therma Tech NNT-5000C TC

Version Number 1.0

Revision Date 10/24/2002

Page 6 of 6

Print Date 11/6/2011

Japan ENCS : Not determined.

Korea KECI : Listed.

Philippines PICCS : Listed.

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.