

# SAFETY DATA SHEET



## 1. Identification

<b>Product identifier</b>	Therm-O-Light (Type 1)		
<b>Other means of identification</b>	None		
<b>Recommended use</b>	Insulation		
<b>Recommended restrictions</b>	None known.		
<b>Manufacturer/Importer/Supplier/Distributor information</b>			
<b>Manufacturer</b>			
<b>Company name</b>	Therm-O-Comfort Co. Ltd.		
<b>Address</b>	75 South Edgeware Rd. St. Thomas, ON N5P 2H7 Canada		
<b>Telephone</b>	Phone	519 631 3400	
	Fax	519 631 9533	
<b>e-mail</b>	inquiry@thermocomfort.ca		
<b>Emergency phone number</b>	1-877-684-3766		
<b>Supplier</b>	See above.		

## 2. Hazard identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Not classified.
<b>Label elements</b>	
<b>Hazard symbol</b>	None
<b>Signal word</b>	None
<b>Hazard statement</b>	The mixture does not meet the criteria for classification.
<b>Precautionary statement</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Other hazards</b>	None known.
<b>Supplemental information</b>	None

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Cellulose pulp	Recycled Paper Fiber	65996-61-4	> 85
Ammonium sulfate		7783-20-2	< 10
Boric acid		10043-35-3	4.5- 5.5
Lubricating oil (petroleum)		72623-86-0	< 2

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

<b>Inhalation</b>	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
<b>Skin contact</b>	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
<b>Eye contact</b>	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Get medical attention if symptoms occur.

<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat patient symptomatically.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide.
<b>Unsuitable extinguishing media</b>	Not available.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Hazardous combustion products</b>	Not available.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. For personal protection, see section 8.
<b>Methods and materials for containment and cleaning up</b>	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Do not discharge into lakes, streams, ponds or public waters.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid breathing dust. Ensure adequate ventilation. Observe good industrial hygiene practices. Wash thoroughly after handling. When using do not eat or drink.
<b>Conditions for safe storage, including any incompatibilities</b>	Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

## 8. Exposure controls/Personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	STEL	6 mg/m <sup>3</sup>	Inhalable fraction.
	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	STEL	6 mg/m <sup>3</sup>	Inhalable
	TWA	2 mg/m <sup>3</sup>	Inhalable

#### Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	STEL	6 mg/m <sup>3</sup>	Inhalable fraction.

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value	Form
	TWA	2 mg/m3	Inhalable fraction.

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Exposure guidelines</b>	Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH.  Cellulose Dust:  PEL-TWA 15 mg/m3 total dust (PNOS) EL-TWA 5 mg/m3 respirable fraction (PNOS) TLV-TWA 10 mg/m3 inhalable (PNOS) TLV-TWA 3mg/m3 respirable (PNOS)
<b>Appropriate engineering controls</b>	Ensure adequate ventilation.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Other</b>	As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH 95 respirator.
<b>Thermal hazards</b>	Not applicable.
<b>General hygiene considerations</b>	When using do not eat or drink.

**9. Physical and chemical properties**

<b>Appearance</b>	Loose fibers
<b>Physical state</b>	Solid.
<b>Form</b>	fibrous
<b>Colour</b>	Grey
<b>Odour</b>	None
<b>Odour threshold</b>	Not applicable
<b>pH</b>	6.5 - 7.2
<b>Melting point/freezing point</b>	Not applicable
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not applicable
<b>Flammability limit - upper (%)</b>	Not applicable
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	Not applicable
<b>Vapour density</b>	Not applicable
<b>Relative density</b>	144 kg/m3 (compressed form)
<b>Solubility(ies)</b>	
<b>Solubility (Water)</b>	10 - 15 %

<b>Partition coefficient (n-octanol/water)</b>	Not applicable
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	Not applicable
<b>Viscosity</b>	Not applicable
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Flammability</b>	Not applicable
<b>Oxidizing properties</b>	Not oxidizing.
<b>Partition coefficient (oil/water)</b>	Not applicable

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## 10. Stability and reactivity

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<b>Reactivity</b>	None known.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.
<b>Conditions to avoid</b>	Do not mix with other chemicals.
<b>Incompatible materials</b>	Strong oxidizing agents and reducing agents, metal hydrides, alkali metals, nitric acid, hydrogen peroxide and chlorine.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon, Carbon monoxide and Oxides of sulphur.

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## 11. Toxicological information

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### Information on likely routes of exposure

<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.

**Symptoms related to the physical, chemical and toxicological characteristics**      Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

#### Acute toxicity

Components	Species	Test results
Ammonium sulfate (CAS 7783-20-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	4540 mg/kg
Boric acid (CAS 10043-35-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 0.2 mg/l/4h
<i>Oral</i>		
LD50	Chicken	2950 mg/kg
	Dog	2000 mg/kg
	Mouse	3450 mg/kg
	Rat	2660 mg/kg

Components	Species	Test results
Cellulose pulp (CAS 65996-61-4)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	< 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	< 5800 mg/m <sup>3</sup> , 4 hours
<i>Oral</i>		
LD50	Rat	< 5000 mg/kg
Lubricating oil (petroleum) (CAS 72623-86-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5.2 mg/l/4h
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.	
<b>Exposure minutes</b>	Not available.	
<b>Erythema value</b>	Not available.	
<b>Oedema value</b>	Not available.	
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.	
<b>Corneal opacity value</b>	Not available.	
<b>Iris lesion value</b>	Not available.	
<b>Conjunctival reddening value</b>	Not available.	
<b>Conjunctival oedema value</b>	Not available.	
<b>Recover days</b>	Not available.	
<b>Respiratory or skin sensitisation</b>		
<b>Respiratory sensitisation</b>	Not a respiratory sensitizer.	
<b>Skin sensitisation</b>	This product is not expected to cause skin sensitisation.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Not classified.	
<b>Reproductive toxicity</b>	Boric acid may cause developmental changes based on published data, at doses many times in excess of those that could occur through inhalation of dust in occupational settings. However, a study has shown this product to be non-hazardous.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not an aspiration hazard.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful.	
<b>Further information</b>	This product has no known adverse effect on human health.	

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## 12. Ecological information

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<b>Ecotoxicity</b>	See below
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**Ecotoxicological data**

Components	Species	Test results
Ammonium sulfate (CAS 7783-20-2)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Ceriodaphnia dubia)
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)
Boric acid (CAS 10043-35-3)		
Crustacea	EC50	Daphnia
<b>Aquatic</b>		
Fish	LC50	Razorback sucker (Xyrauchen texanus)
Lubricating oil (petroleum) (CAS 72623-86-0)		
Crustacea	EC50	Daphnia
<b>Persistence and degradability</b>	No data is available on the degradability of this product.	
<b>Bioaccumulative potential</b>	No data available.	
<b>Mobility in soil</b>	No data available.	
<b>Mobility in general</b>	Not available.	
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	

**13. Disposal considerations**

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. Transport information**

<b>General</b>	Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of the product will appear below.
<b>Transportation of Dangerous Goods (TDG - Canada)</b>	Not regulated as dangerous goods.

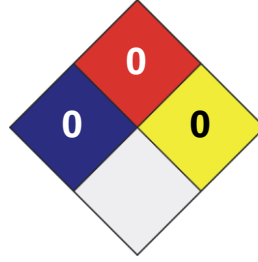
**15. Regulatory information**

<b>Canadian federal regulations</b>	This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.	
<b>Export Control List (CEPA 1999, Schedule 3)</b>	Not listed.	
<b>Greenhouse Gases</b>	Not listed.	
<b>Precursor Control Regulations</b>	Not regulated.	
<b>WHMIS status</b>	Not Controlled	
<b>Inventory Status</b>	<b>Country(s) or region</b>	<b>Inventory Name</b>
	Canada	Domestic Substances List (DSL)
	Canada	Non-Domestic Substances List (NDSL)
		<b>On Inventory (Yes/No)*</b>
		Yes
		No
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)		

## 16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/	0
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		X

**Issue date**

03-June-2016

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**Version #**

02

**Other information**

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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