

MATERIAL SAFETY DATA SHEET

1 · Product and Company Identification

Product name : Phenolic Molding Compound - T375HF

Synonyms : Longlite - T375HF

Recommended use and restrictions on use : Phenolic Molding Compound

Supplier detail : Chang Chun Plastics.Co.,Ltd. (Hsin-Chu factory)
8, Chung Hua Rd., Fong Shan Village, Hu-Kou Industrial Park, Hsin-Chu 303, Taiwan

Emergency phone number : 886-3-5981511

2 · Hazards Identification

Hazard classification : Skin sensitization

Warning information : Not applicable

GHS label : Health Hazard



Signal word : Warning

Hazard statement : May be harmful if swallowed, May be harmful in contact with skin, May cause an allergic skin reaction

Precautionary statement :

Other hazards :

EMERGENCY OVERVIEW :

No unusual spill hazard, moderate fire hazard; moderate health risk by ingestion/inhalation. Granular, nodular, pellet or briquette form with a slight phenol odor. Phenolic molding compound with two stage resin.

HEALTH HAZARD DATA :

Unless specifically indicated otherwise, the following information applies to the compound in the form sold, not to articles, parts, etc. molded of the compound. In normal molding, the material substantially completes its progression to a cross-linked insoluble, infusible solid.

AS SOLD :

The product is a plastic molding compound: A plastic resin (Phenol-formaldehyde polymer) intimately mixed and reacted with one or more of a variety of organic and /inorganic filling materials. The plastic resin is not believed or known to be hazardous. When fully “cured” or reacted, the plastic resin is insoluble, infusible and binds the well-dispersed, embedded filling materials. However, “as

sold”

the plastic resin is not completely “cured” or reacted and contains some unreacted ingredients dissolved with in it. So dissolved, these chemicals are extremely unlikely to pose a hazard; but because they are hazardous in their pure forms, OSHA requires that they be reported and describe as hazardous ingredients. Under normal conditions of storage and handling, no significant amount of hazardous vapors should evolve from the “as sold” product. Because phenol is more soluble in the resin than in water, there is no likely significant health hazard through skin absorption. The great majority of filling materials

are embedded within compound granules that are large enough not to constitute an inhalation hazard. Nevertheless, some particles of plastic resin and/or filling materials may be present in a size that constitutes a respirable dust (including in some products up to 1% inorganic filling material mixed in after

compounding). This respirable dust may contain one or more of the following materials: carbon black, coal dust, fibrous glass, mineral wool fiber, and/or wood flour (soft). Chronic inhalation of each of the above has been associated with fibrotic lung disease. For most or all, it has been associated with increased risk of lung cancer, especially among smokers. Inhalation of dust should be avoidable with proper material handling procedures and good ventilation, but if not, respirators should be worn. The primary acute health risk from exposure to the product “as sold” is irritation, especially from the dust. Ingestion, inhalation of dust, and contact with skin and eyes should be avoided.

AS USED :

During polymerization (e.g., curing of the product during normal processing) or decomposition (e.g., overheating or burning of the product) small amounts of gaseous ammonia, phenol and formaldehyde (as well as water vapor, carbon monoxide, and carbon dioxide are evolved. Breathing of fumes can be harmful. If the odor of ammonia or formaldehyde is noticeable, then the airborne concentration of those chemicals should be carefully monitored and ventilation improvements considered.

Those chemicals begin to be detectable by odor at concentrations, approaching or exceeding the PELs. The odor of phenol begins to be noticeable at a concentration about one-fifth the PEL. In any case, adequacy of ventilation can best be determined by use of instruments to monitor airborne concentrations of ammonia, phenol, and formaldehyde. Grinding or machining of cured molded material may create a dust that poses a respiratory hazard if inhaled and may release small amounts of gaseous ammonia. Acute or Chronic Health Hazard Information Ordinary use of this product is unlikely to produce significant exposure to hazardous chemicals. PELs for these chemicals are set at levels designed to avoid any significant health risk and are achievable with proper material handling procedures, ventilation and housekeeping. Nevertheless, per OSHA requirements, the following is a list of possible health hazard if one were exposed to the following chemicals at levels much higher, or in a different form, than expected from ordinary use of this product:

* PHENOLIC FORMALDEHYDE RESIN :

Inhalation : move to where is with fresh air, induce vomiting and see doctor.

Ingestion : move to where is with fresh air, induce vomiting and see doctor.

Skin Contact : wash with shower water. Not expected to be a health hazard from skin exposure.

Eye Contact : wash with clear water to take it off and see doctor.

* CALCIUM CARBONATE :

Inhalation : wash with clear water

Ingestion : move to where is with fresh air, induce vomiting and see doctor.

Skin Contact : wash with shower water. Not expected to be a health hazard from skin exposure.

Eye Contact : wash with clear water to take it off and see doctor.

* HEXAMETHYLENE TETRAAMINE :

Inhalation : Dust may be formed under certain conditions of use.

Harmful by ingestion. Irritating to eyes and respiratory system.

May Irritate skin. Used medicinally as an antiseptic.

If ingested in large quantities can cause gastro-intestinal upsets. cystitis, haematuria and renal lesions

due to evolution of formaldehyde.

* PHENOL :

Highly toxic. Poisoning may occur via skin absorption, vapor inhalation, or ingestion. Inhalation of the

vapors may cause severe irritation to the nose, throat, and respiratory tract. May cause liver, kidney,

and heart damage.

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL): 5 ppm (TWA) (skin)

-ACGIH Threshold Limit Value (TLV): 5 ppm (TWA) (skin)

* FORMALDEHYDE :

Irritant to eyes, lungs, and skin. Has been shown to cause cancer in laboratory animals. Listed as an IARC carcinogen. California law requires the following statement be included: contains a chemical (formaldehyde) known to the State of California to cause cancer. National cancer institute study finds

little evidence to connect formaldehyde exposure to cancer in humans.

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL): 0.75 ppm (TWA), 2 ppm (STEL), 0.5 ppm (TWA)

action

level for formaldehyde

-ACGIH Threshold Limit Value (TLV): 0.3 ppm Ceiling formaldehyde, Sensitizer, A2 Suspected Human Carcinogen

* AMMONIA :

Irritant to eyes, mucous membranes and respiratory tract.

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL): 50 ppm (NH₃)

-ACGIH Threshold Limit Value (TLV): 25 ppm (NH₃) (TWA) 35 ppm (STEL)

* BLACK PIGMENT:

Inhalation : Temporary discomfort to upper respiratory tract may occur due to mechanical irritation when exposures are well above the occupational exposure limit

Ingestion : No evidence of adverse effects from available data

Eye : High dust concentrations may cause mechanical irritation to eye

Skin : May cause mechanical irritation, soiling and drying of skin

* DUST :

Irritant to eyes, nose, and throat. Can cause respiratory effects such as pneumoconiosis, bronchitis,

emphysema, and progressive massive fibrosis, with long exposure.

3 · Composition / Information on Ingredients

○ Substances ● Mixture

Mixtures :

Chemical identity	
Names of ingredient	Concentration or Concentration range(% of contents)
CAS NO. 9003-35-4 : Phenolic-Formaldehyde Resin (C ₆ H ₄ OH-CH ₂ -(C ₆ H ₃ OH-CH ₂ -) _n -C ₆ H ₄ OH)	30 ~ 50 R22: Harmful if swallowed
CAS NO.9004-34-6 Wood Flour	15 ~ 35 R22: Harmful if swallowed
CAS NO.471-34-1 : Calcium Carbonate	15 ~ 35 R22: Harmful if swallowed
CAS NO. 100-97-0 : Hexamethylene Tetraamine	2 ~ 8 R20/21/22: Harmful by inhalation, in contact with skin and if swallowed R36: Irritating to eyes R37: Irritating to respiratory system R42: May cause sensitisation by inhalation
CAS NO.1333-86-4 : Black Pigment	0 ~ 5 R22: Harmful if swallow R65: Harmful: may cause lung damage if swallowed
CAS NO. 108-95-2 : Phenol (C ₆ H ₅ OH)	0 ~ 2 R20/21/22: Harmful by inhalation, in contact with skin and if swallowed R36: Irritating to eyes R37: Irritating to respiratory system R42: May cause sensitisation by inhalation

4 · First-Aid Measures

First-aid measures for different exposure routes : If spill: sweep the floor, dispose all waste according to government regulations.

Inhalation : If feel not comfortable, remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin Contact : Immediately flush skin with water for at least 15 minutes and get medical aid immediately.

Eye Contact : Immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid

if irritation develops or persists .
Ingestion : Rinse mouth with water, drink large quantities of water, and then induce vomiting by having patient tickle back of throat with finger
Most important symptoms and hazardous effects : Nothing special
Protection of First-aiders : Gloves and mask
Notes to Physician : Chemical name

5 · Fire-Fighting Measures

Extinguishing Media : Water,powder,CO2,Foam.
Fire and Explosion Hazards : CO2, CO, Formaldehyde.
Special Firefighting Procedures : Water,powder,CO2,Foam.
Special Equipment for the Protection of Firefighters : mask with fresh air supply, fire fighting clothes

6 · Accidental Release Measures

Personal Precautions : Mask for nose,Glasses for eyes,Rubber gloves for hands and protective clothes for body.
Environmental Precautions : Store in proper area and keep the environment away from sunshine and direct heat
Methods for Cleaning Up : Sweep or shovel spills into appropriate container for disposal

7 · Safe Handling and Storage Measures

Handling : Keep material away from sparks, flames, and other ignition sources.
Storage : keep away from sunshine and direct heat

8 · Exposure Controls / Personal Protection

Control parameters : Not applicable			
Control Parameters			
8 hours time weighted average exposure limits TWA	Short-term exposure limits STEL	Maximum exposure limits CEILING	biological standards
N.A.	N.A.	N.A.	N.A.
Personal protective equipment : Eyeglasses, gloves, helmet, mask, safety shower, eye wash fountain.			
• Respiratory protection : Not so necessary			

<ul style="list-style-type: none"> • Hand protection : Chemical resistant gloves. (Butyl rubber , Polyvinyl alcohol) • Eye protection : • Skin and body protection : Wear appropriate protective gloves and clothing to prevent and minimize contact with skin.
<p>Specific hygiene measures : Wash hand before eating and drinking. Wash hand before eating and drinking.</p>

9 · Physical and Chemical Properties

Appearance(physical state, color, etc.) : Solid	Odor : Phenol smell but not obvious
Odor threshold : Phenol smell but not obvious	Melting point : (R&B method)Softening Point=60-100'C
pH : 9.0 - 10.0	Boiling point/boiling Range : No information available °C
Flammability : No information available	Flash point & method : Not applicable °C used : --
Decompositon temperature : No information available, by estimation is around 700 °C	
Autoignition temperature : Not Applicable	Explosion limits : No information available
Vapor pressure : No information available	Vapor density : No information available
Density : 1.52 - 1.58 g/cm ³	Solubility : Insoluble in water
Partition coefficient n-octanol/water : No information available	Evaporation rate : No information available

10 · Stability and Reactivity

Stability : Stable under normal conditions.
Possible Hazardous Reactions Occurring under Specific Conditions : No information available
Conditions to Avoid : Keep away from sources of ignition, heat, high temperature.
Materials to Avoid : Avoid Acids and / or Alkaline
Hazardous Decomposition Products : No information available

11 · Toxicological Information

Routes of exposure(inhalation, ingestion, skin and eye contact) : inhalation,ingestion,skin and eye

contact
Symptoms : No information available
Acute toxicity : Oral rat LD50: > 316ppm (phenol)
Chronic Toxicity or delayed Toxicity : No information available

12 · Ecological Information

Ecotoxicity : --
Persistence and degradability : No information available
Bioaccumulative potential : No information available
Mobility in soil : No information available
other adverse effect : Cause eye and skin irritation,

13 · Disposal Considerations

Recommended Methods for Safe and Environmentally Preferred Disposal : Dispose in safe manner in accordance with local/national regulation.
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14 · Transport Information

UN number : Not available
UN proper shipping name : Not available
Transport hazard class : Not available
Packing group : Not available
Marine pollution :
Specific precautionary transport measures and conditions : Nothing special

15 · Regulatory Information

<p>Applicable Regulations :</p> <ol style="list-style-type: none"> Phenol is specified to be Group I Materials of the Japanese PRTR. <p>U.S. FEDERAL REGULATIONS:</p> <p>TSCA STATUS: On Toxic Substance Control Inventory.</p> <p>CERCLA REPORTABLE QUANTITY: None.</p> <p>SARA TITLE III:</p> <p>Section 302 Extremely Hazardous Substances: None.</p> <p>Section 311/312 Hazardous Categories: Chronic, Fire.</p> <p>Section 313 Toxic Chemicals: Phenol</p> <p>RCRA STATUS: Not regulated</p> <p>CANADIAN REGULATIONS:</p>
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WHMIS: D1B

16、Other Information

Literature references	Not applicable	
Organization	Name : Chan Chun Plastic Co., Ltd..	
	Address/Telephone : No. 8, Chun Hwa Road, Hsin Chu Industrial District, Hsin Chu. Taiwan.	
Person who prepared the GHS	Title : Deputy Section Manager	Name : Y.C.Liu
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