1. IDENTIFICATION OF PRODUCT & COMPANY

PRODUCT REFERENCE	WM3000 – 15052A	
PRODUCT NAME	WRAP-MASTER 3000 Epoxy Base – BLUE	
INTENDED USE	Anticorrosive coating	
DETAILS OF COMPANY	THIN FILM TECHNOLOGY, Inc. 802 Utah St. South Houston, TX 77587	(USA) 713-910-6200 VOICE (USA) 713-910-6210 FAX

2. HAZARDS IDENTIFICATION

HAZARD STATEMENTS:
H226 – Flammable liquid and vapor.
H312+H332 – Harmful in contact with skin or if inhaled.
H315 – Causes skin irritation.
H317 – May cause an allergic skin reaction.
H319 – Causes serious eye irritation.
H360 – May damage fertility or the unborn child.
H411 – Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:
P261 – Avoid breathing mist/vapours/spray.
P264 – Wash hands and skin contact areas thoroughly after handling.
P272 – Contaminated work clothing should not be allowed out of the workplace.
P273 – Avoid release to the environment.
P280 – Wear protective gloves, eye protection and face protection etc.
P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.
P305+P338+P351 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P308+P313 – If exposed or concerned: Get medical advice/attention.
P333 + P313 – If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313 – If eye irritation persists: Get medical advice/attention.
P362 – Take off contaminated clothing and wash before reuse.
P391 – Collect spillage.
PP501 – Dispose of contents/container through a waste management company authorized by the local government.
SIGNAL WORD: WARNING

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of the CHIP Regulations or which are assigned Occupational Exposure Values.

Substance Name	Concentration Range (%)	GHS. (*)	EC Number	CAS No.
Bisphenol F liquid epoxy resin	50 – 90%	H315, H319, H335	(polymer)	28064-14-4
Dimethylformamide	1 – 5%	H226, H312+H332, H319, H360	200-679-5	68-12-2

(*) for full text see Section 16

4. FIRST AID MEASURES

GENERAL	In all cases of doubt or when symptoms persist seek medical attention. Never give anything by mouth to an unconscious person.
INHALATION	Remove to fresh air, check for breathing and administer artificial respiration if necessary. Give nothing by mouth. If unconscious place in recovery position and seek medical advice. If conscious ensure the person sits or lies down. Obtain medical attention if ill effects occur.
EYE CONTACT	Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes holding the eyelids apart, seek medical advice if effects occur.
SKIN CONTACT	Remove contaminated clothing and footwear. Wash skin thoroughly with soap and water or use a proprietary skin cleanser. Do NOT use solvents or thinners. Seek medical attention if irritation persists.
INGESTION	If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. If conscious give 1 pint of fresh water to drink. If unconscious, check for breathing and give artificial respiration if necessary.

5. FIRE FIGHTING MEASURES

FLAMMABILITY CLASSIFICATON: Combustible IIIB

FLASH POINT:	136°F
EXTINGUISHING MEDIA:	Carbon dioxide, foam, dry chemical, water fog.
NOT RECOMMENDED:	Water jet
UNUSUAL HAZARDS:	Combustion products may include, but are not limited to: phenolics, carbon dioxide, acrolein, and carbon dioxide.
SPECIAL FIREFIGHTING PROCEDURES:	Use protective firefighting clothing and positive pressure self-contained breathing apparatus to protect against potential harmful and/or irritating fumes. Do not use high pressure water since this may spread the area of the fire. Ventilate affected areas.

6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate area. Exclude non-essential personnel. Avoid breathing vapors. Refer to protective measures listed in Sections 7 and 8. Contain and collect spillages with non-combustible absorbent materials e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal in accordance with waste regulations (see Section 13).
Do not allow to enter drains or water courses. Clean preferably with a detergent, avoid use of solvents. If the product enters drains or sewers immediately contact the local water company; in the case of contamination of streams, rivers or lakes the relevant environmental agency. Dispose of in accordance with applicable local and federal environmental control regulations.

7. STORAGE & HANDLING

HANDLING

Provide sufficient air exchange and/or exhaust in workrooms. Ensure adequate ventilation. Handle and open container with care. When using do not eat, drink or smoke. Keep away from heat, sparks, open flame, and hot surfaces. No smoking. Wear protective gloves/clothing/eye protection. Wash contaminated clothing before reuse.

STORAGE

Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Observe the label precautions. Store between 5 and 40°C in a dry well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorised access. Containers which are opened should be properly resealed and kept upright to prevent leakage. Store away from oxidising agents and strongly alkaline and acid materials. The principles contained in general guidance for storage of packaged potentially dangerous substances should be observed when storing this product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Provide additional forced ventilation if existing natural ventilation is insufficient. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of solvent vapour and/or particulates below the relevant Occupational Exposure Values, suitable respiratory protective equipment should be worn (see "Workplace Exposure Limits" below).

EXPOSURE LIMIT VALUES

Substance	PEL/REL (1)		IDLH (2)		Notations (3)
	ppm (4)	mg/m³ (4)	ppm (4)	mg/m³ (4)	
Bisphenol F liquid epoxy resin	None listed		None listed		
Dimethylformamide	10 ppm	(30mg/m^3)	500 ppm		

NOTES

(1) Permissible Exposure Limit/Recommended Exposure Limit.
(2) Immediately Dangers to Life or Health.
(3) 'Sk' indicates a risk of absorption through the skin. 'Sen' indicates a respiratory sensitizer.
(4) 'WEL' indicates Workplace Exposure Limit.

GENERAL PROTECTION	All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the OSHA regulations.
RESPIRATORY PROTECTION	Air fed respiratory protective equipment should be worn when sprayed if exposure of the sprayer or other people nearby cannot be controlled to below the Occupational Exposure Values and engineering methods cannot reasonably be improved.
HAND PROTECTION	When skin exposure may occur, advice should be sought from glove suppliers on appropriate types and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Barrier creams may help to protect exposed areas of skin, but are not substitutes for full physical protection. They should not be applied after exposure has occurred.
EYE PROTECTION	Eye protection designed to protect against liquid splashes should be worn.
SKIN PROTECTION	Cotton or cotton/synthetic overalls or coveralls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a proprietary skin cleaner. Regular skin inspection of users of this product is recommended. ALWAYS WASH YOUR HANDS BEFORE EATING, SMOKING OR USING THE TOILET. See Section 12 for detailed information.

9. PHYSICAL PROPERTIES

PHYSICAL STATE:	Black/Blue pasty liquid		
FLASH POINT:	136°F (58°C)	METHOD:	DIN 51758 (Pensky-Martins Closed Cup)
VISCOSITY:	250 – 500 Poise	METHOD:	BS3900 Part A7
SPECIFIC GRAVITY:	1.4 Kgs/ Ltr.	METHOD:	BS3900 Part A19
VOC CONTENT:	N/S		
VAPOUR DENSITY:	0.948 g/mL		
SOLUBILITY IN WATER:	Immiscible		
UPPER/LOWER FLAMMABILITY AND EXPLOSIVE LIMITS	Upper Explosion Limit: 16% (V) Lower Explosion Limit: 2.2% (V)		

10. STABILITY AND REACTIVITY

Stable under the recommended storage and handling conditions (see Section 7). In a fire, hazardous decomposition products such as smoke, acrolein, carbon monoxide, carbon dioxide, and oxides of nitrogen may be produced. Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of an exothermic reaction. Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself. The product has been assessed by evaluation of its raw materials. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short term and long term exposure by oral, inhalation and dermal routes of exposure and eye contact. See Sections 3 and 15 for details of the resulting hazard classification. Splashes in the eye may cause irritation and reversible local damage. Based on the properties of the epoxy constituents and considering toxicological data on similar preparations, this preparation may be a skin sensitizer and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitization, possibly with cross-sensitisation to other epoxies. Skin contact with the preparation and exposure to mist and vapour should be avoided.

Acute Oral Toxicity: LD50 (rat): 2,000mg/Kg. Acute Dermal Toxicity: LD50 (rat): 1,500mg/Kg.

12. ECOLOGICAL INFORMATION

There is no data available on the product itself. This product has been assessed by evaluation of its raw materials and is assessed for ecological hazards accordingly. See Sections 3 and 15 for details. The product should not be allowed to enter drains or watercourses or be deposited where it can affect ground or surface waters. Bisphenol F based liquid epoxy resins as well as many reactive diluents were classified as dangerous for the environment by the Association of Plastic Manufacturers in Europe (APME) based on available data and knowledge. When properly cured with appropriate curing agent this epoxy base is completely inert to the environment.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself

14. TRANSPORT INFORMATION

DOT
N,N-Dimethylformamide
UN#: 2265
Hazard Class: 3 (9)
Packing group : PG III
Reportable Quantity (RQ): 100 lbs
Poison Inhalation Hazard: No

IMDG
N,N-Dimethylformamide
UN#: 2265
Hazard Class: 3 (9)
Packing group : PG III
Reportable Quantity (RQ): 100 lbs
Poison Inhalation Hazard: No
Marine pollutant: Yes

IATA
N,N-Dimethylformamide
UN#: 2265
Hazard Class: 3 (9)
Packing group : PG III
Reportable Quantity (RQ): 100 lbs
Poison Inhalation Hazard: No
EmS#: F – A, S – F
Additional information: MARINE POLLUTANT

15. REGULATORY INFORMATION

SARA Title III section 311/312 (40CFR370) : Fire hazard, Acute health hazard, Chronic Health Hazard

SARA Title III section 313 (40CFR372) : The following components are subject to reporting levels:
N,N-dimethylformamide CAS-No : 68-12-2

Chemicals known to the state of California to cause cancer or reproductive toxicity: None known to be in the product at levels requiring a warning.

Chemical safety assessment: Not available

The information contained in this Safety Data Sheet does not constitute the user's own assessment of the workplace risks as required by other health and safety legislation.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Thin Film Technology, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

ONCE MIXED THE MATERIAL IS HARMLESS TO ENVIRONMENT

Avoid release to the environment.(ONLY IN UNMIXED STATE)

HMIS ratings: Health: 1; Flammability: 1; Reactivity: 0. Preparer: J. Longmore Refs: SUZ: rar TYU dd 8/19/11

1. IDENTIFICATION OF PRODUCT & COMPANY

PRODUCT REFERENCE	WM3000-17880B	
PRODUCT NAME	WRAP-MASTER 3000 Curing agent – White	
INTENDED USE	Anticorrosive coating component	
DETAILS OF COMPANY	THIN FILM TECHNOLOGY, Inc. 802 Utah St. South Houston, TX 77587	(USA) 713-910-6200 VOICE (USA) 713-910-6210 FAX

2. HAZARDS IDENTIFICATION

HAZARD STATEMENTS:
H302+H332 Harmful if swallowed or inhaled.
H315-causes skin irritation.
H317-May cause an allergic skin reaction
H318-Causes serious eye damage
H373-May cause damage to organs though prolonged or repeated exposure
H412-Toxic to aquatic organisms in unreacted condition, may cause long term adverse effects in the aquatic environment (unmixed material only
PRECAUTIONARY STATEMENTS:
P261-Avoid breathing mist/vapors/spray.
P264-Wash hands and skin contact areas thoroughly after handling.
P270-Do not eat, drink or smoke when using this product.
P271-Use only outdoors or in a well ventilated area.
P272-Contaminated clothing should not be allowed out of the workplace.
P273-Avoid release into the environment
P280-Wear protective gloves, eye protection and face protection etc.
P301+P330+P331- IF SWALLOWED-Immediately call a poison center or a doctor. Do NOT induce vomiting.
P302+P352-- IF ON SKIN: Wash with plenty of soap and water. .
P312- Call a POISON CENTER if you feel unwell
P333+P313- If skin irritation or rash occurs. Get medical attention.
P304–P340-IF INHALED: Remove to fresh air and keep in a rest position comfortable for breathing.
P305+P351+P338- IF IN EYES: Rinse cautiously with fresh water for several minutes. Remove contact lenses if present – continue rinsing.
P362- Take off contaminated clothing and wash before reusing.
P273-Avoid release to the environment.(ONLY IN UNMIXED STATE)
SIGNAL WORD: DANGER

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of the CHIP Regulations or which are assigned Occupational Exposure Values.

Substance Name	Concentration Range (%)	GHS (*)	EINECS/ ELINCS No.	CAS No.
Benzyl Alcohol	3 – 8%	Mixture – All Hazard and Precautionary statements in section 2 apply	500 – 033 – 5	100 – 51 – 6
4,4'Methylenebiscylcohexanamine	20 – 40%		221 – 453 - 2	1761 – 71 – 3
Methyleneoxide, polymer with benzenamine, hydrogenated.	10 – 20%			135108-88-2
Remaining resins are a trade secret	20 – 50%			

(*) for full text see Section 16

4. FIRST AID MEASURES

GENERAL	In all cases of doubt or when symptoms persist seek medical attention. Never give anything by mouth to an unconscious person.
INHALATION	Remove to fresh air, check for breathing and administer artificial respiration if necessary. Give nothing by mouth. If unconscious place in recovery position and seek medical advice. If conscious ensure the person sits or lies down. Obtain medical attention if ill effects occur.
EYE CONTACT	Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes holding the eyelids apart, seek medical advice if effects occur.
SKIN CONTACT	Remove contaminated clothing and footwear. Wash skin thoroughly with soap and water or use a proprietary skin cleanser. Do NOT use solvents or thinners. Seek medical attention if irritation persists.
INGESTION	If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. If conscious give 1 pint of fresh water to drink. If unconscious, check for breathing and give artificial respiration if necessary.

5. FIRE FIGHTING MEASURES

FLAMMABILITY CLASSIFICATON: Combustible IIIB

FLASH POINT:	>200°F
EXTINGUISHING MEDIA:	Carbon dioxide, foam, dry chemical, water fog.
NOT RECOMMENDED:	Water jet
UNUSUAL HAZARDS:	Combustion products may include, but are not limited to: phenolics, carbon dioxide, acrolein, and carbon dioxide.
SPECIAL FIREFIGHTING PROCEDURES:	Use protective firefighting clothing and positive pressure self-contained breathing apparatus to protect against potential harmful and/or irritating fumes. Do not use high pressure water since this may spread the area of the fire.

6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate area. Exclude non-essential personnel. Avoid breathing vapours. Refer to protective measures listed in Sections 7 and 8. Contain and collect spillages with non-combustible absorbent materials e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal in accordance with waste regulations (see Section 13).
Do not allow to enter drains or water courses. Clean preferably with a detergent, avoid use of solvents. If the product enters drains or sewers immediately contact the local water company; in the case of contamination of streams, rivers or lakes the relevant environmental agency. Dispose of in accordance with applicable local and federal environmental control regulations.

7. STORAGE & HANDLING

HANDLING

Provide sufficient air exchange and/or exhaust in workrooms. Ensure adequate ventilation. Handle and open container with care. When using do not eat, drink or smoke.

STORAGE

Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Observe the label precautions. Store between 5 and 40°C in a dry well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorised access. Containers which are opened should be properly resealed and kept upright to prevent leakage. Store away from oxidising agents and strongly alkaline and acid materials. The principles contained in general guidance for storage of packaged potentially dangerous substances should be observed when storing this product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Provide additional forced ventilation if existing natural ventilation is insufficient. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of solvent vapour and/or particulates below the relevant Occupational Exposure Values, suitable respiratory protective equipment should be worn (see "Workplace Exposure Limits" below).

EXPOSURE LIMIT VALUES

Substance	TWA (1)		STEL (2)		Notations (3)
	ppm (4)	mg/m³ (4)	ppm (4)	mg/m³ (4)	
Benzyl Alcohol					CAS#100-51-6
	TWA 10ppm	44.2 mg/m	None listed		

NOTES

(1) Long Term Exposure Limit - 8 hour Time Weighted Average.
(2) Short Term Exposure Limit - 15 minute reference period.
(3) 'Sk' indicates a risk of absorption through the skin. 'Sen' indicates a respiratory sensitizer.
(4) 'WEL' indicates Workplace Exposure Limit.

GENERAL PROTECTION	All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the OSHA regulations.
RESPIRATORY PROTECTION	Air fed respiratory protective equipment should be worn when sprayed if exposure of the sprayer or other people nearby cannot be controlled to below the Occupational Exposure Values and engineering methods cannot reasonably be improved.
HAND PROTECTION	When skin exposure may occur, advice should be sought from glove suppliers on appropriate types and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Barrier creams may help to protect exposed areas of skin, but are not substitutes for full physical protection. They should not be applied after exposure has occurred.
EYE PROTECTION	Eye protection designed to protect against liquid splashes should be worn.
SKIN PROTECTION	Cotton or cotton/synthetic overalls or coveralls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a proprietary skin cleaner. Regular skin inspection of users of this product is recommended.
	ALWAYS WASH YOUR HANDS BEFORE EATING, SMOKING OR USING THE TOILET.
	See Section 12 for detailed information.

9. PHYSICAL PROPERTIES

PHYSICAL STATE:	Slightly viscous Liquid		
COLOR:	White		
ODOR:	mild		
ODOR THRESHOLD	Not determined.		
INITIAL BOILING POINT	>205°C/>401°F		
MELTING PT. /FREEZING PT.	Not applicable		
FLAMM. CLASSIFICATION	Combustible IIIB		
UPPER/LOWER EXPL. LIMITS	No data available		
	>250°F		
FLASH POINT:	>101°C/>214°F		
AUTOIGNITION TEMP.	>300°C/>572°F	METHOD:	DIN 51758 (Pensky-Martins Closed Cup)
DECOMPOSITION TEMP.	No data available		
VISCOSITY:	250 – 700 cP @ 25°C/77°F		
SPECIFIC GRAVITY:	1.04 Kgs/ Ltr.	METHOD:	BS3900 Part A7
EVAPORATION RATE:	Essentially non-volatile at normal ambient	METHOD:	BS3900 Part A19
VOC CONTENT:	temperatures.		
	Essentially zero under normal conditions.		
VAPOR DENSITY:	>1 (Air = 1)		
SOLUBILITY IN WATER:	Slight		
PARTITION COEFFICIENT:	1-3 (log P_{ow})		

10. STABILITY AND REACTIVITY

Stable under the recommended storage and handling conditions (see Section 7). In a fire, hazardous decomposition products such as smoke, acrolein, carbon monoxide, carbon dioxide, and oxides of nitrogen may be produced. Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of an exothermic reaction.
Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself. The product has been assessed by evaluation of its raw materials. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short term and long term exposure by oral, inhalation and dermal routes of exposure and eye contact. See Sections 3 and 15 for details of the resulting hazard classification. Splashes in the eye may cause irritation and reversible local damage. Based on the properties of the epoxy constituents and considering toxicological data on similar preparations, this preparation may be a skin sensitizer and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitization, possibly with cross-sensitisation to other epoxies. Skin contact with the preparation and exposure to mist and vapour should be avoided.
Acute Oral Toxicity: LD50 (rat): >5,000mg/Kg. Acute Dermal Toxicity: LD50 (rabbit): 20,000mg/Kg.

12. ECOLOGICAL INFORMATION

There is no data available on the product itself. This product has been assessed by evaluation of its raw materials and is assessed for ecological hazards accordingly. See Sections 3 and 15 for details. The product should not be allowed to enter drains or watercourses or be deposited where it can affect ground or surface waters. When properly cured with the appropriate epoxy base this curing agent is completely inert to the environment.

3. DISPOSAL CONSIDERATIONS

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with local and federal regulations.

14. TRANSPORT INFORMATION

Transport within the user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage.

Onward transport, subsequent to purchase:

Proper Shipping Name:	Amines, Liquid, Corrosive, N.O.S. (Cycloaliphatic amine, mixed cycloaliphatic amines)
UN Number:	2735
Hazard Class:	8
Packing Group:	II
Sub Hazard Class:	-
Marine Pollutant: (Y/N):	Possible Marine Pollutant in unreacted condition – do not allow to enter water courses.
Environmental Hazrds	Yes
ERG Code	8L
Special provisions:	-
Flashpoint (IMDG only)	>200°F
EmS	F-A, S-B

15. REGULATORY INFORMATION

SARA Title III section 311/312 (40CFR370) : Acute health hazard
SARA Title III section 313 (40CFR372) : No reportable components
CERCLA status (40CFR302): no reportable quantity components
TSCA inventory status: Reported/included
Canadian DSL Status : reported/included
REACH Annex XIV (SVHC): No listed components
REACH Annex XIVII: No listed components
REACH status (EC 1907/2006): This material has been registered, pre-existed or is otherwise exempted from registration under the Registration, Evaluation and Authorisation of Chemical Substances.
Chemical safety assessment: Not available
The information contained in this Safety Data Sheet does not constitute the user's own assessment of the workplace risks as required by other health and safety legislation.

16. OTHER INFORMATION

Text of any GHS listed in Section 3
HAZARD STATEMENTS:
H302+H332 Harmful if swallowed or inhaled.
H315-causes skin irritation.
H317-May cause an allergic skin reaction
H318-Causes serious eye damage
H373-May cause damage to organs though prolonged or repeated exposure
H412-Toxic to aquatic organisms in unreacted condition, may cause long term adverse effects in the aquatic environment.
PRECAUTIONARY STATEMENTS:
P261-Avoid breathing mist/vapors/spray.
P264-Wash hands and skin contact areas thoroughly after handling.
P270-Do not eat, drink or smoke when using this product.
P271-Use only outdoors or in a well ventilated area.
P272-Contaminated clothing should not be allowed out of the workplace.
P273-Avoid release into the environment
P280-Wear protective gloves, eye protection and face protection etc.
P301+P330+P331- IF SWALLOWED-Immediately call a poison center or a doctor. Do NOT induce vomiting.
P302+P352-- IF ON SKIN: Wash with plenty of soap and water. .
P312- Call a POISON CENTER if you feel unwell
P333+P313- If skin irritation or rash occurs. Get medical attention.
P304–P340-IF INHALED: Remove to fresh air and keep in a rest position comfortable for breathing.
P305+P351+P338- IF IN EYES: Rinse cautiously with fresh water for several minutes. Remove contact lenses if present – continue rinsing.
P362- Take off contaminated clothing and wash before reusing.
P273-Avoid release to the environment.(ONLY IN UNMIXED STATE)
SIGNAL WORD: DANGER
HMIS ratings: Health: 2; Flammability: 1; Reactivity: 0.

Preparer: J. Longmore Refs: SUZ: rar TYU dd 8/19/11

1. IDENTIFICATION OF PRODUCT & COMPANY

PRODUCT REFERENCE	SHORT STUFF thickening fibers	
PRODUCT NAME	SHORT STUFF	
INTENDED USE	Thickening fibers for epoxy coatings	
DETAILS OF COMPANY	THIN FILM TECHNOLOGY, Inc. 802 Utah St. South Houston, TX 77587	(USA) 713-910-6200 VOICE (USA) 713-910-6210 FAX

2. HAZARDS IDENTIFICATION

HAZARD STATEMENTS:

Hazard Classification of Chemical:	NOT APPLICABLE
Signal Word:	NOT APPLICABLE
Hazard Statements:	NOT APPLICABLE
Required Pictograms:	NOT APPLICABLE
Precautionary Statements:	NOT APPLICABLE
Description of Other Hazards not otherwise Classified:	NONE KNOWN
Consideration of Hazardous Mixtures:	NOT APPLICABLE

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of the CHIP Regulations or which are assigned Occupational Exposure Values.

Substance Name	**Concentration Range (%)**	**GHS (*)**	**EINECS/ ELINCS No.**	**CAS No.**
Polyethylene (Ethene, homopolymer)	99 - 100 %	None		9002-88-4

(*) for full text see Section 16

4. FIRST AID MEASURES

INHALATION	In all cases of doubt or when symptoms persist seek medical attention. Never give anything by mouth to an unconscious person. Remove to fresh air, check for breathing and administer artificial respiration if necessary. Give nothing by mouth.
EYE CONTACT	Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes holding the eyelids apart, seek medical advice if effects occur.
SKIN CONTACT	Remove contaminated clothing and footwear. Wash skin thoroughly with soap and water or use a proprietary skin cleanser. Do NOT use solvents or thinners. Seek medical attention if irritation persists.
INGESTION	If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. If conscious give 1 pint of fresh water to drink. If unconscious, check for breathing and give artificial respiration if necessary.

5. FIRE FIGHTING MEASURES

FLASH POINT:	>200°F
EXTINGUISHING MEDIA:	Carbon dioxide, foam, dry chemical, water fog.
NOT RECOMMENDED:	Water jet
UNUSUAL HAZARDS:	Combustion products may include, but are not limited to: carbon monoxide and carbon dioxide.
SPECIAL FIREFIGHTING PROCEDURES:	Use protective firefighting clothing and positive pressure self-contained breathing apparatus to protect against potential harmful and/or irritating fumes. Do not use high pressure water since this may spread the area of the fire.

6. ACCIDENTAL RELEASE MEASURES

Exclude non-essential personnel. Avoid breathing vapors.
Avoid the use of air jets if possible, use vacuums or brushes to sweep and place in receptacles.

7. STORAGE & HANDLING

HANDLING

Provide sufficient air exchange and/or exhaust in workrooms. Ensure adequate ventilation. When using do not eat, drink or smoke.

STORAGE

Keep away from food, drink and animal feeding stuffs. Observe the label precautions. Store between 5 and 40°C in a dry well ventilated place away from sources of ignition. Containers which are opened should be properly resealed. Store away from oxidising agents and strongly alkaline and acid materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Product should be considered a nuisance dust, i.e. particulates not otherwise classified.

EXPOSURE LIMIT VALUES

Substance	TWA (1)	OSHA PEL	Notations (3)
	10 mg/M3 total dust 3 mg/M3 respirable	15 mg/M3 total dust 5 mg/M3 respirable	

GENERAL PROTECTION	All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the OSHA regulations. Glove material is not specified
RESPIRATORY PROTECTION	
EYE PROTECTION	Local exhaust ventilation may be used to reduce exposure to airborne particles. A dust mask and goggles are recommended when necessary to prevent irritation from airborne particles. Goggles or gloves if eye or excessive skin contact is possible.
SKIN PROTECTION	

9. PHYSICAL PROPERTIES

PHYSICAL STATE:	White fluffy particles
ODOR:	No significant odor
ODOR THRESHHOLD:	Not available – no odor
pH:	Not available
MELTING POINT:	135°C/275°F
INIT. BOILING PT & RANGE	Not Applicable
FLASH POINT:	>200°C/392°F
VISCOSITY:	Solid – Not Applicable
SPECIFIC GRAVITY:	0.96 Kg/ Ltr.
UEL/LEL limits	Not Applicable
VAPOR PRESSURE:	Not Applicable
SOLUBILITY:	Not soluble in water
VAPOR DENSITY:	Not Applicable
AUTO-IGNITION TEMP.	Not Available
DECOMPOSITION TEMP.	Not Available

10. STABILITY AND REACTIVITY

Stable under the recommended storage and handling conditions (see Section 7). In a fire, hazardous decomposition products such as smoke, organic acids, carbon monoxide and carbon dioxide produced. Hazardous polymerization will not occur. If a sufficient concentration of particles become airborne during processing, handling or by other means, product may form a combustible dust in air. Avoid contact with strong oxidizers.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself. The product has been assessed by evaluation of its raw materials. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short term and long term exposure by oral, inhalation and dermal routes of exposure and eye contact.
Skin absorption is not known to occur. No chronic effects from short-term exposures are known to occur.
Acute toxicity: Oral, (rat) >3g/Kg; Oral, (mouse) >5g/Kg.
Symptoms of respiratory irritation may include coughing, sneezing or irritation of the nasal passages.
Ingestion of large amounts of particles may cause gastro-intestinal blockage, which can cause stomach distress.
Symptoms of eye irritation may include itching, watering, or redness of the eyes.
NTP: Not Listed. IARC: 3 – not classified as to carcinogenicity in humans. OSHA: Not regulated.

12. ECOLOGICAL INFORMATION

Material is recognized as being non-biodegradable. Environmental toxicity data is not available however polyethylene is generally recognised as not being a toxic environment hazard.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Dispose of in accordance with governmental regulations for non-hazardous solid waste.

14. TRANSPORT INFORMATION

DOT Proper shipping description : NOT REGULATED FOR GROUND TRANSPORT
IMDG proper shipping description: POLYETHYLENE PULP, NOT REGULATED
Hazard class:
Packing group:
Ems#:
Marine pollutant: NO
IATA Proper shipping description: POLYETHYLENE PULP, NOT REGULATED.
Hazard class:
Packing Group:
EmS#:
Additional information:

15. REGULATORY INFORMATION

ARA Title III section 311/312 (40CFR370) : POLYETHYLENE PULP, NOT REGULATED
SARA Title III section 313 (40CFR372) : No reportable components
CERCLA status (40CFR302): no reportable quantity components
TSCA inventory status: Reported/included
Canadian DSL Status : reported/included
Chemicals known to the state of California to cause cancer or reproductive toxicity: POLYETHYLENE PULP, NOT REGULATED
REACH Annex XIV (SVHC): No listed components
REACH Annex XIVII: No listed components
REACH status (EC 1907/2006): This material has been registered, pre-existed or is otherwise exempted from registration under the Registration, Evaluation and Authorisation of Chemical Substances.
Chemical safety assessment: Not available. The information contained in this Safety Data Sheet does not constitute the user's own assessment of the workplace risks as required by other health and safety legislation.

16. OTHER INFORMATION

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Preparer: J. Longmore Refs: SUZ: SS#SDS-26-01 dd:UNK