

SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: On-Spec 9000 Epoxy

Product Code: Resin Part A

Hastings Part # A30100

SUPPLIER/MANUFACTURER:

Hastings Fiber Glass Products, Inc.

1301 W. Green Street

Hastings, MI 49058

Emergency telephone: 800-535-5053

24 hours

Product Use:

Not recommended for:

SECTION 2 - HAZARDS IDENTIFICATION

NEPA Ratings, risks phrases and suggested HMIS Hazards Categories:

GHS Ratings:

Flammable liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)
Skin corrosive	3	Reversible adverse effects in dermal tissue, Draize score: >= 1.5 < 2.3
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days
Mutagen	1B	Known to produce heritable mutations in human germ cells Subcategory 1B, Positive results: In vivo heritable germ cell tests in mammals, Human germ cell tests, In vivo somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity
Carcinogen	2	Limited evidence of human or animal carcinogenicity
Reproductive toxin	1A	Based on human evidence

GHS Hazards

H225	Flammable liquid and vapour
H316	Causes mild skin irritation
H319	Causes serious eye irritation.
H340	May cause genetic defects.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.

GHS Precautions

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	KEEP AWAY FROM HEAT/sparks/open flames/hot surfaces - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/light/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	WASH HANDS THOROUGHLY after handling.
P280	WEAR PROTECTIVE GLOVES/protective clothing/eye protection/face protection.
P281	USE PERSONAL PROTECTIVE EQUIPMENT as required.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338

IF IN EYES: Rinse continuously 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.

P332+P313

If skin irritation occurs: Get medical advice/attention.

P337+P313

If eye irritation persists: Get medical advice/attention.

P370+P378

IN CASE OF FIRE: Use dry chemical (BC) or carbon dioxide (Co2) for extinction.

P405

Store locked up.

P403+P235

STORE IN A WELL VENTILATED PLACE. Keep cool.

P501

Dispose of contents/container in accordance with Local, State and Federal Regulations.

Signal Word: Danger



SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %
Ethyl acetate	141-78-6	20.00% - 30.00%
2-Pentanone, 4-methyl-	108-10-1	20.00% - 30.00%
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	20.00% - 30.00%
Diacetone alcohol	123-42-2	5.00% - 10.00%
Diisobutyl ketone	108-83-8	5.00% - 10.00%
Ethyl alcohol	64-17-5	1.00% - 5.00%
2-Heptanone, 4,6-dimethyl-	19549-80-5	1.00% - 5.00%
Toluene	108-88-3	1.00% - 5.00%

SECTION 4 - FIRST AID MEASURES

INHALATION: Remove to FRESH air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lenses if possible.

SKIN CONTACT: Flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. Discard contaminated leather articles such as shoes and belt. Do not apply oils or ointments unless ordered by the physician.

INGESTION: If fully conscious, give two glasses of water, then induce vomiting by touching back of throat with finger. Keep head below hips to prevent aspiration of liquid into the lungs. CALL A PHYSICIAN immediately. Never induce vomiting or give anything by mouth to an unconscious victim.

NOTE TO PHYSICIANS: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Individuals experiencing breathing difficulties after exposure to vapor generated in aerosol applications should be observed for at least 48 hours in case delayed respiratory complications develop.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: -5 C (23 F)

LEL: 1.00

UEL:

Flammable Limits: Highly flammable liquid and vapor (GHS Category 2)

Extinguishing Media: Alcohol Foam CO2 Dry Chemical Foam Water Fog

Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, sparks, and open flame. Closed containers may

explode when exposed to extreme heat. Do not use when smoking or where electrical sparks or open flame is present.

Haz. Combust. Products: Burning can produce carbon-dioxide and/or carbon monoxide.

Fire Fighting: Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Fire Equipment: As in a fire, always wear self-contained breathing apparatus in pressure-demand (MSA/NIOSH approved or equivalent), and full protective gear.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES:

Spill supervisor: Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

Small Spills: Absorb spilled liquid with sorbent pads, socks, or other inert material such as vermiculite, sand, or earth.

Large Spills: Avoid run-off into storm sewers and ditches that lead to waterways. Use only non-sparking tools and equipment. A vapor suppressing foam may be used. Approach the spill from upwind and pick up absorbent material and place it in a suitable container. Disposal should be in accordance with Local, State, and Federal Regulations.

SECTION 7 - HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust. Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e., 40 to 95 F (4 to 35 C).

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: GROUNDING: when transferring, fill stem and container must be grounded and bonded. Store in a cool dry area with ventilation suitable for storing materials shown in section II. Keep away from heat, sparks and open flame. Do not cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition; they may explode and cause injury or death.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Ethyl acetate 141-78-6	400 ppm TWA; 1400 mg/m3 TWA	400 ppm TWA	NIOSH: 400 ppm TWA; 1400 mg/m3 TWA
2-Pentanone, 4-methyl- 108-10-1	100 ppm TWA; 410 mg/m3 TWA	75 ppm STEL 20 ppm TWA	NIOSH: 50 ppm TWA; 205 mg/m3 TWA 75 ppm STEL; 300 mg/m3 STEL
Bisphenol A diglycidyl ether - bisphenol A copolymer 25036-25-3	Not Established	Not Established	Not Established
Diacetone alcohol 123-42-2	50 ppm TWA; 240 mg/m3 TWA	50 ppm TWA	NIOSH: 50 ppm TWA; 240 mg/m3 TWA
Diisobutyl ketone 108-83-8	50 ppm TWA; 290 mg/m3 TWA	25 ppm TWA	NIOSH: 25 ppm TWA; 150 mg/m3 TWA
Ethyl alcohol 64-17-5	1000 ppm TWA; 1900 mg/m3 TWA	1000 ppm STEL	NIOSH: 1000 ppm TWA; 1900 mg/m3 TWA
2-Heptanone, 4,6-dimethyl- 19549-80-5	Not Established	Not Established	Not Established
Toluene 108-88-3	200 ppm TWA	20 ppm TWA	NIOSH: 100 ppm TWA; 375 mg/m3 TWA 150 ppm STEL; 560 mg/m3 STEL

ENGINEERING: Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the work place. Use explosion proof equipment and good manufacturing practice.

Sufficient ventilation, in volume and pattern, should be provided to keep air contamination below current applicable OSHA permissible exposure limit or ACGIH'S TLV limit.

OTHER PRECAUTIONS: Provide respiratory protection against fumes generated during burning. Avoid prolonged contact with skin and

breathing of vapors.

PROTECTIVE GEAR:Niosh/Osha approved respirator types suitable for materials in section II recommended. Approved airline type respirators or hoods recommended in confined areas. Wear protective gloves/clothing/eye/face as required.

CONTAMINATED GEAR:Take off immediately any contaminated clothing and wash it before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

This mixture typically exhibits the following properties under normal circumstances:

<p>Appearance Liquid dispersion</p> <p>Vapor Pressure: Not Applicable</p> <p>Vapor Density Heavier than air</p> <p>SG 0.91</p> <p>Freezing point: Not Applicable</p> <p>Boiling range: 114°C</p> <p>Evaporation Rate Slower than ether</p> <p>Autoignition temperature: Not Applicable</p> <p>Viscosity: Not Applicable</p> <p>VOC: Actual 691 gr/ltr</p>	<p>Odor Solvent</p> <p>Odor threshold: Not Applicable</p> <p>pH: Not Applicable</p> <p>Melting point: Not Applicable</p> <p>Solubility: Not Applicable</p> <p>Flash point: -5 C, 23 F</p> <p>Physical State Liquid</p> <p>Decomposition temperature: Not Applicable</p> <p>Boiling Point 114°C</p> <p>VOC: Actual 5.76 lb/gl</p>
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SECTION 10 - STABILITY AND REACTIVITY

Stability:

STABLE

Components of this mixture are incompatible with the following materials:

No data found

This mixture is likely to exhibit the following combustion products:

No data found

Hazardous polymerization will not occur.

SECTION 11- TOXICOLOGICAL INFORMATION

Mixture Toxicity

Oral Toxicity LD50: 4,653mg/kg

Inhalation Toxicity LC50: 30mg/L

Component Toxicity

108-88-3 Toluene

Oral LD50: 636 mg/kg (Rat) Inhalation LC50: 13 mg/L (Rat)

Toxicological Information: No data found

ROUTES OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Contact

Exposure to this material may affect the following organs:

Blood Eyes Kidneys Liver Central Nervous System Reproductive System
Skin Respiratory System

Effects of Overexposure

Carcinogenicity:

The following chemicals comprise 0.1% or more of this mixture and are listed and / or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA.

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
64-17-5	Ethyl alcohol	1 to 5%	Ethyl alcohol: IARC: Human carcinogen OSHA: listed
108-10-1	2-Pentanone, 4-methyl-	0 to 30%	2-Pentanone, 4-methyl-: IARC: Possible human carcinogen OSHA: listed

SECTION 12 - ECOLOGICAL INFORMATION

Ecological information: No data found.

Component Ecotoxicity

Ethyl acetate	96 Hr LC50 Pimephales promelas: 220 - 250 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 484 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 352 - 500 mg/L [semi-static] 48 Hr EC50 Daphnia magna: 560 mg/L [Static]
2-Pentanone, 4-methyl-	96 Hr LC50 Pimephales promelas: 496 - 514 mg/L [flow-through] 48 Hr EC50 Daphnia magna: 170 mg/L 96 Hr EC50 Pseudokirchneriella subcapitata: 400 mg/L
Diacetone alcohol	96 Hr LC50 Lepomis macrochirus: 420 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 420 mg/L
Diisobutyl ketone	96 Hr LC50 Oncorhynchus mykiss: 140 mg/L [semi-static] 96 Hr EC50 Pseudokirchneriella subcapitata: 100 mg/L
Ethyl alcohol	96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through] 48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]
Toluene	96 Hr LC50 Pimephales promelas: 15.22 - 19.05 mg/L [flow-through] (1 day old) ; 96 Hr LC50 Pimephales promelas: 12.6 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.89 - 7.81 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 14.1 - 17.16 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.8 mg/L [semi-static]; 96 Hr LC50 Lepomis macrochirus: 11.0 - 15.0 mg/L [static]; 96 Hr LC50 Oryzias latipes: 54 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 28.2 mg/L [semi-static]; 96 Hr LC50 Poecilia reticulata: 50.87 - 70.34 mg/L [static] 48 Hr EC50 Daphnia magna: 5.46 - 9.83 mg/L [Static]; 48 Hr EC50 Daphnia magna: 11.5 mg/L 96 Hr EC50 Pseudokirchneriella subcapitata: >433 mg/L; 72 Hr EC50 Pseudokirchneriella subcapitata: 12.5 mg/L [static]

SECTION 13 - DISPOSAL CONSIDERATIONS

Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 - TRANSPORT INFORMATION

This material is classified for transport as follows:

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	UN1263,PAINT	1263	II	3
IATA	UN1263,PAINT	1263	II	3
IMDG	UN1263,PAINT	1263	II	3

SECTION 15 - REGULATORY INFORMATION

Additional regulatory listings, where applicable.

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING!

This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

- 108-88-3 Toluene Carcinogen, Carcinogen
- 64-17-5 Ethyl alcohol Carcinogen, Carcinogen
- 108-10-1 2-Pentanone, 4-methyl- Carcinogen

This product contains the following substances subject to the reporting requirements of Section 313 of Title II of the Superfund Amendments and Reauthorization Act of 1986 and CFR Partr 40

- 108-88-3 Toluene
- 108-10-1 2-Pentanone, 4-methyl-

<u>Country</u>	<u>Regulation</u>	<u>All Components Listed</u>

EU Risk Phrases

R10: Flammable

Safety Phrase

S16: Keep away from sources of ignition - No smoking

SECTION 16 - OTHER INFORMATION

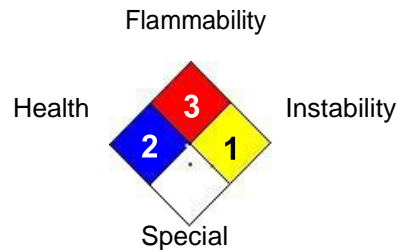
Hazardous Material Information System (HMIS)

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	1
PERSONAL PROTECTION	I

HMIS & NFPA Hazard Rating Legend

- * = Chronic Health Hazard
- 0 = INSIGNIFICANT
- 1 = SLIGHT
- 2 = MODERATE
- 3 = HIGH

National Fire Protection Association (NFPA)



The information contained on this SDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

Reviewer Revision

Date Prepared: 8/12/2015

SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: On-Spec 9000 Epoxy

Product Code: Hardener Part B

Hastings Part # A30101

SUPPLIER/MANUFACTURER:

Hastings Fiber Glass Products, Inc.

1301 W. Green Street

Hastings, MI 49058

Emergency telephone: 800-535-5053
24 hours

Product Use:

Not recommended for:

SECTION 2 - HAZARDS IDENTIFICATION

NEPA Ratings, risks phrases and suggested HMIS Hazards Categories:

GHS Ratings:

Flammable liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)
Skin corrosive	1C	Destruction of dermal tissue: Exposure < 4 hours Observation < 14 days, visible necrosis in at least one animal
Eye corrosive	1	Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity >= 3, Iritis > 1.5
Skin sensitizer	1	Skin sensitizer
Reproductive toxin	2	Human or animal evidence possibly with other information

GHS Hazards

H225	Flammable liquid and vapour
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H361	Suspected of damaging fertility or the unborn child.

GHS Precautions

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	KEEP AWAY FROM HEAT/sparks/open flames/hot surfaces -No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/light/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	WASH HANDS THOROUGHLY after handling.
P272	Contaminated work clothing should not be allowed out of the workplace
P280	WEAR PROTECTIVE GLOVES/protective clothing/eye protection/face protection.
P281	USE PERSONAL PROTECTIVE EQUIPMENT as required.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment (see directions on this label)
P363	Wash contaminated clothing before reuse
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with soap and water.
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse continuously 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 a rash occurs: Get medical advice/attention.
 P370+P378 IN CASE OF FIRE: Use dry chemical (BC) or carbon dioxide (Co2) for extinction.
 P405 Store locked up.
 P403+P232 STORE IN A WELL VENTILATED PLACE. Keep cool.
 P501 Dispose of contents/container in accordance with Local, State and Federal Regulations.

Signal Word: Danger



SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %
Isopropyl alcohol	67-63-0	40.00% - 50.00%
Acetone	67-64-1	20.00% - 30.00%
Fatty acids, C18-unsaturated, dimers, reaction products with Polyethylenepolyamines	68410-23-1	20.00% - 30.00%
Triethylenetetramine	112-24-3	1.00% - 5.00%

SECTION 4 - FIRST AID MEASURES

INHALATION: Remove to FRESH air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lenses if possible.

SKIN CONTACT: Flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. Discard contaminated leather articles such as shoes and belt. Do not apply oils or ointments unless ordered by the physician.

INGESTION: If fully conscious, give two glasses of water, then induce vomiting by touching back of throat with finger. Keep head below hips to prevent aspiration of liquid into the lungs. CALL A PHYSICIAN immediately. Never induce vomiting or give anything by mouth to an unconscious victim.

NOTE TO PHYSICIANS: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Individuals experiencing breathing difficulties after exposure to vapor generated in aerosol applications should be observed for at least 48 hours in case delayed respiratory complications develop.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: -20 C (-4 F)

LEL: 3.00

UEL:

Flammable Limits: Highly flammable liquid and vapor (GHS Category 2)

Extinguishing Media: Alcohol Foam CO2 Dry Chemical Foam Water Fog

Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Do not use when smoking or where electrical sparks or open flame is present.

Haz. Combust. Products: Burning can produce carbon-dioxide and/or carbon monoxide.

Fire Fighting: Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Fire Equipment: As in a fire, always wear self-contained breathing apparatus in pressure-demand (MSA/NIOSH approved or equivalent), and full protective gear.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES:

Spill supervisor: Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

Small Spills: Absorb spilled liquid with sorbent pads, socks, or other inert material such as vermiculite, sand, or earth.

Large Spills: Avoid run-off into storm sewers and ditches that lead to waterways. Use only non-sparking tools and equipment. A vapor suppressing foam may be used. Approach the spill from upwind and pick up absorbent material and place it in a suitable container. Disposal should be in accordance with Local, State, and Federal Regulations.

SECTION 7 - HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust. Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e. 40 to 95 F (4 to 35 C).

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: GROUNDING: when transferring, fill stem and container must be grounded and bonded. Store in a cool dry area with ventilation suitable for storing materials shown in section II. Keep away from heat, sparks and open flame. Do not cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition; they may explode and cause injury or death.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Isopropyl alcohol 67-63-0	400 ppm TWA; 980 mg/m ³ TWA	400 ppm STEL 200 ppm TWA	NIOSH: 400 ppm TWA; 980 mg/m ³ TWA 500 ppm STEL; 1225 mg/m ³ STEL
Acetone 67-64-1	1000 ppm TWA; 2400 mg/m ³ TWA	750 ppm STEL 500 ppm TWA	NIOSH: 250 ppm TWA; 590 mg/m ³ TWA
Fatty acids, C18- unsaturated, dimers, reaction products with Polyethylenepolyamines 68410-23-1	Not Established	Not Established	Not Established
Triethylenetetramine 112-24-3	Not Established	Not Established	Not Established

ENGINEERING: Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the work place. Use explosion proof equipment and good manufacturing practice.

Sufficient ventilation, in volume and pattern, should be provided to keep air contamination below current applicable OSHA permissible exposure limit or ACGIH'S TLV limit.

OTHER PRECAUTIONS: Provide respiratory protection against fumes generated during burning. Avoid prolonged contact with skin and breathing of vapors.

PROTECTIVE GEAR: NIOSH/OSHA approved respirator types suitable for materials in section II recommended. Approved airline type respirators or hoods recommended in confined areas. Wear protective gloves/clothing/eye/face as required.

CONTAMINATED GEAR: Take off immediately any contaminated clothing and wash it before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

This mixture typically exhibits the following properties under normal circumstances:

Appearance Liquid dispersion Vapor Pressure: Not Applicable Vapor Density Heavier than air SG 0.85 Freezing point: Not Applicable Boiling range: 56°C Evaporation Rate Slower than ether Autoignition temperature: Not Applicable Viscosity: Not Applicable VOC: Actual 402 gr/ltr VOC: Regulatory 4.69 lb/gl	Odor Solvent Odor threshold: Not Applicable pH: Not Applicable Melting point: Not Applicable Solubility: Not Applicable Flash point: -20 C, -4 F Physical State Liquid Decomposition temperature: Not Applicable VOC: Regulatory 562 gr/ltr Boiling Point 56°C VOC: Actual 3.36 lb/lgl
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SECTION 10 - STABILITY AND REACTIVITY

Stability:

STABLE

Components of this mixture are incompatible with the following materials:
No data found

This mixture is likely to exhibit the following combustion products:
No data found

Hazardous polymerization will not occur.

SECTION 11- TOXICOLOGICAL INFORMATION

Mixture Toxicity

Inhalation Toxicity LC50: 190mg/L

Component Toxicity

67-63-0 Isopropyl alcohol
Oral LD50: 4,396 mg/kg (Rat)

112-24-3 Triethylenetetramine
Oral LD50: 2,500 mg/kg (Rat) Dermal LD50: 550 mg/kg (Rabbit)

Toxicological Information: No data found

ROUTES OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Contact

Ingestion

Exposure to this material may affect the following organs:

Eyes Central Nervous System Skin Respiratory System

Effects of Overexposure

Carcinogenicity:

The following chemicals comprise 0.1% or more of this mixture and are listed and / or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA.

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
None			N/A

SECTION 12 - ECOLOGICAL INFORMATION

Ecological information: No data found.

SDS for: Hardener Part B

Component Ecotoxicity

Isopropyl alcohol	96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >1400000 µg/L 48 Hr EC50 Daphnia magna: 13299 mg/L 96 Hr EC50 Desmodesmus subspicatus: >1000 mg/L; 72 Hr EC50 Desmodesmus subspicatus: >1000 mg/L
Acetone	96 Hr LC50 Oncorhynchus mykiss: 4.74 - 6.33 mL/L; 96 Hr LC50 Pimephales promelas: 6210 - 8120 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 8300 mg/L 48 Hr EC50 Daphnia magna: 10294 - 17704 mg/L [Static]; 48 Hr EC50 Daphnia magna: 12600 - 12700 mg/L
Triethylenetetramine	96 Hr LC50 Poecilia reticulata: 570 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas: 495 mg/L 48 Hr EC50 Daphnia magna: 31.1 mg/L 72 Hr EC50 Desmodesmus subspicatus: 2.5 mg/L; 72 Hr EC50 Pseudokirchneriella subcapitata: 20 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: 3.7 mg/L

SECTION 13 - DISPOSAL CONSIDERATIONS

Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 - TRANSPORT INFORMATION

This material is classified for transport as follows:

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	UN1263, PAINT RELATED MATERIAL	UN1263	II	3
IATA	UN1263, PAINT RELATED MATERIAL	UN1263	II	3
IMDG	UN1263, PAINT RELATED MATERIAL	UN1263	II	3

SECTION 15 - REGULATORY INFORMATION

Additional regulatory listings, where applicable.

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING!

This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

- None

This product contains the following substances subject to the reporting requirements of Section 313 of Title II of the Superfund Amendments and Reauthorization Act of 1986 and CFR Partr 40

67-63-0 Isopropyl alcohol

<u>Country</u>	<u>Regulation</u>	<u>All Components Listed</u>
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EU Risk Phrases

R10: Flammable

Safety Phrase

S16: Keep away from sources of ignition - No smoking

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

National Fire Protection Association (NFPA)

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	1
PERSONAL PROTECTION	I

HMIS & NFPA Hazard Rating

Legend

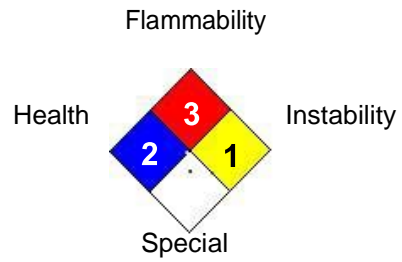
* = Chronic Health Hazard

0 = INSIGNIFICANT

1 = SLIGHT

2 = MODERATE

3 = HIGH



The information contained on this SDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: #711 THINNER . Product Code: T711

Hastings Part # A30109

SUPPLIER/MANUFACTURER:

Hastings Fiber Glass Products, Inc.
1301 W. Green Street
Hastings, MI 49058

Emergency telephone: 800-535-5053
24 hours

SECTION 2 - HAZARDS IDENTIFICATION

NEPA Ratings, risks phrases and suggested HMIS Hazards Categories:

GHS Ratings:

Flammable liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)
Oral Toxicity	Acute Tox. 4	Oral>300+<=2000mg/kg
Dermal Toxicity	Acute Tox. 3	Dermal>200+<=1000mg/kg
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days
Mutagen	1B	Known to produce heritable mutations in human germ cellsSubcategory 1B, Positive results: In vivo heritable germ cell tests in mammals, Human germ cell tests, In vivo somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity
Carcinogen	1B	Presumed Human Carcinogen, Based on demonstrated animal carcinogenicity
Reproductive toxin	2	Human or animal evidence possibly with other information
Aspiration hazard	1	Aspiration Toxicity Category 1: Known (regarded)- human evidence - hydrocarbons with kinematic viscosity ? 20.5 mm ² /s at 40° C.

GHS Hazards

H225	Flammable liquid and vapour
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation.

GHS Precautions

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	KEEP AWAY FROM HEAT/sparks/open flames/hot surfaces -No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/light/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	WASH HANDS THOROUGHLY after handling.
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P280	WEAR PROTECTIVE GLOVES/protective clothing/eye protection/face protection.
P281	USE PERSONAL PROTECTIVE EQUIPMENT as required.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth
P331	Do NOT induce vomiting.
P362	Take off contaminated clothing and wash before reuse
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352	IF ON SKIN: Wash with soap and water.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse continuously 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.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	IN CASE OF FIRE: Use dry chemical (BC) or carbon dioxide (Co2) for extinction.
P405	Store locked up.
P403+P235	STORE IN A WELL VENTILATED PLACE. Keep cool.
P501	Dispose of contents/container in accordance with Local, State and Federal Regulations.

Signal Word: Danger



SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %
2-Butoxyethanol	111-76-2	30.00% - 40.00%
Methyl propyl ketone	107-87-9	30.00% - 40.00%
Solvent naphtha, petroleum, light aromatic	64742-95-6	30.00% - 40.00%

SECTION 4 - FIRST AID MEASURES

INHALATION: Remove to FRESH air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lenses if possible.

SKIN CONTACT: Flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. Discard contaminated leather articles such as shoes and belt. Do not apply oils or ointments unless ordered by the physician.

INGESTION: If fully conscious, give two glasses of water, then induce vomiting by touching back of throat with finger. Keep head below hips to prevent aspiration of liquid into the lungs. CALL A PHYSICIAN immediately. Never induce vomiting or give anything by mouth to an unconscious victim.

NOTE TO PHYSICIANS: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Individuals experiencing breathing difficulties after exposure to vapor generated in aerosol applications should be observed for at least 48 hours in case delayed respiratory complications develop.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: 7 C (45 F)

LEL: 1.00

UEL:

Flammable Limits: Highly flammable liquid and vapor (GHS Category 2)

Extinguishing Media: Alcohol Foam CO2 Dry Chemical Foam Water Fog

Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Do not use when smoking or where electrical sparks or open flame is present.

Haz. Combust. Products: Burning can produce carbon-dioxide and/or carbon monoxide.

Fire Fighting: Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Fire Equipment: As in a fire, always wear self-contained breathing apparatus in pressure-demand (MSA/NIOSH approved or equivalent), and full protective gear.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES:

Spill supervisor: Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

Small Spills: Absorb spilled liquid with sorbent pads, socks, or other inert material such as vermiculite, sand, or earth.

Large Spills: Avoid run-off into storm sewers and ditches that lead to waterways. Use only non-sparking tools and equipment. A vapor suppressing foam may be used. Approach the spill from upwind and pick up absorbent material and place it in a suitable container. Disposal should be in accordance with Local, State, and Federal Regulations.

SECTION 7 - HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust. Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e., 40 to 95 F (4 to 35 C).

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: GROUNDING: when transferring, fill stem and container must be grounded and bonded. Store in a cool dry area with ventilation suitable for storing materials shown in section II. Keep away from heat, sparks and open flame. Do not cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition; they may explode and cause injury or death.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
2-Butoxyethanol 111-76-2	50 ppm TWA; 240 mg/m3 TWA	20 ppm TWA	NIOSH: 5 ppm TWA; 24 mg/m3 TWA
Methyl propyl ketone 107-87-9	200 ppm TWA; 700 mg/m3 TWA	150 ppm STEL	NIOSH: 150 ppm TWA; 530 mg/m3 TWA
Solvent naphtha, petroleum, light aromatic 64742-95-6	Not Established	Not Established	Not Established

ENGINEERING: Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the work place. Use explosion proof equipment and good manufacturing practice.

Sufficient ventilation, in volume and pattern, should be provided to keep air contamination below current applicable OSHA permissible exposure limit or ACGHI'S TLV limit.

OTHER PRECAUTIONS: Provide respiratory protection against fumes generated during burning. Avoid prolonged contact with skin and breathing of vapors.

PROTECTIVE GEAR: Niosh/Osha approved respirator types suitable for materials in section II recommended. Approved airline type respirators or hoods recommended in confined areas. Wear protective gloves/clothing/eye/face as required.

CONTAMINATED GEAR: Take off immediately any contaminated clothing and wash it before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

This mixture typically exhibits the following properties under normal circumstances:

Appearance Liquid dispersion Vapor Pressure: N/A Vapor Density Heavier than air SG 0.86 Freezing point: Not Applicable Boiling range: 102°C Evaporation Rate Slower than ether Autoignition temperature: Not Applicable Viscosity: Not Applicable	Odor Solvent Odor threshold: Not Applicable pH: Not Applicable Melting point: Not Applicable Solubility: Not Applicable Flash point: 7°C, 45°F Physical State Liquid Decomposition temperature: Not Applicable Boiling Point 102°C
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SECTION 10 - STABILITY AND REACTIVITY

Stability:

STABLE

Components of this mixture are incompatible with the following materials:
No data found

This mixture is likely to exhibit the following combustion products:
No data found

Hazardous polymerization will not occur.

SECTION 11- TOXICOLOGICAL INFORMATION

Mixture Toxicity

Oral Toxicity LD50: 1,090mg/kg
Dermal Toxicity LD50: 660mg/kg
Inhalation Toxicity LC50: 1,192mg/L

Component Toxicity

111-76-2	2-Butoxyethanol Oral LD50: 470 mg/kg (Rat) Dermal LD50: 220 mg/kg (Rabbit) Inhalation LC50: 450 ppm
107-87-9	Methyl propylketone Oral LD50: 1,600 mg/kg (Rat)
64742-95-6	Solvent naphtha, petroleum, light aromatic Inhalation LC50: 3,400 ppm (Rat)

Toxicological Information: No data found

ROUTES OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Contact

Exposure to this material may affect the following organs:

Blood Eyes Kidneys Liver Central Nervous System Skin Respiratory
System

Effects of Overexposure

Carcerogenicity:

The following chemicals comprise 0.1% or more of this mixture and are listed and / or classified as carcerogens or potential carcerogens by

NTP, IARC, OSHA.
CAS Number
None

Description

% Weight

Carcinogen Rating
N/A

SECTION 12 - ECOLOGICAL INFORMATION

Ecological information: No data found.

Component Ecotoxicity

2-Butoxyethanol	96 Hr LC50 Lepomis macrochirus: 1490 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 2950 mg/L 48 Hr EC50 Daphnia magna: >1000 mg/L
Methyl propyl ketone	96 Hr LC50 Pimephales promelas: 1190 - 1290 mg/L [flow-through]
Solvent naphtha, petroleum, light aromatic	96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L 48 Hr EC50 Daphnia magna: 6.14 mg/L

SECTION 13 - DISPOSAL CONSIDERATIONS

Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements.

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- None

Country

Regulation

All Components Listed

EU Risk Phrases

R10: Flammable

Safety Phrase

S16: Keep away from sources of ignition - No smoking

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

National Fire Protection Association (NFPA)

SDS for: T711

7/18/2016

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HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	2
PERSONAL PROTECTION	I

HMIS & NFPA Hazard Rating

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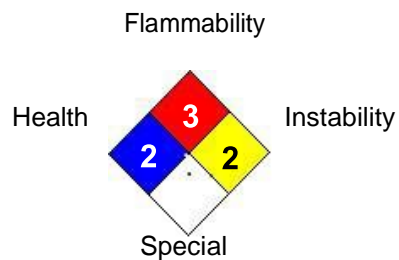
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Reviewer Revision

Date Prepared: 6/14/2016