

SAFETY DATA SHEET

PART A

SECTION 1: IDENTIFICATION OF PRODUCT AND COMPANY

Product Name: "511" Multi Purpose Epoxy

Revised Date: 12/12/2016

Supplier: **TAN NAM DO (TND) Trading Company Ltd**

14 Tran Thien Chanh St., District 10, Ho Chi Minh City, Vietnam

Supplier's Phone Number: +848 38622 968

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:	Flammability	Category – Not classified
	Acute Toxicity – Oral:	Category 5
	Acute Toxicity – Dermal:	Category 5
	Skin Corrosion:	Category – Not classified
	Skin Irritation:	Category 2
	Serious Eye Damage/Eye Irritation:	Category 2B
	Sensitization – Respiratory	Category – Not classified
	Sensitization – Skin:	Category 1
	STOT – Single Exposure:	Category – Not classified
	STOT – Repeated Exposure:	Category – Not classified
	Aspiration Hazard: Category –	Classification not possible
	Aquatic Toxicity - Acute:	Category 2

Hazard Symbol/ Signal Word:



WARNING!

Hazard Statement:

Maybe harmful if swallowed.

Maybe harmful in contact with skin

Causes skin irritation.

Causes eye irritation.

May cause an allergic skin reaction.

Toxic to aquatic life.

Precautionary Statement:

Prevention:

Contaminated work clothing should not be allowed out of the working place.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid release to the environment.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN: Wash with plenty of soap and water.

IF ON CLOTHING: Take off contaminated clothing and wash before use.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Call a POISON CENTER or doctor/physician if you feel unwell.

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Identity	CAS no.	Concentration (%)
Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	25085-99-8	30%
Alkyl(C12-14) glycidyl ether	68609-97-2	2%

SECTION 4: FIRST AID MEASURES

Eye:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Skin:	Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention.
Inhalation:	Moved to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:	If swallowed, do not induce vomiting. If vomiting occurs spontaneously, head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point:	>150°C Closed Cup.
Autoignition temperature:	Not available
Extinguishing Media:	Water spray, foam, dry chemical or carbon dioxide.
Special Fire fighting Procedure:	Fire fighters should wear self-contained breathing apparatus.
Hazardous thermal Decomposition Products:	Carbon dioxide, carbon monoxide and oxides of nitrogen.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Remove all sources of ignition.
Wear appropriate personal protective equipment as specified in Section 8.
Isolate hazard area. Keep unnecessary and unprotected personnel from entering.
Contain and recover liquid when possible. Use non-sparking tools and equipment.
Collect liquid in an appropriate container or absorb with an inert material (dry sand, earth), and place in a chemical waste container.
Do not use combustible materials, such as saw dust.
Do not flush to sewer. If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.

SECTION 7: HANDLING AND STORAGE

Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute.
Outside or detached storage is preferred.
Separate from incompatibles.
Containers should be bonded and grounded for transfers to avoid static sparks.
Storage and use areas should be *No Smoking areas*.
Use non-sparking type tools and equipment, including explosion proof ventilation.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection:	Safety goggles/glasses suitable for use with chemicals.
Respiratory Protection:	Always use appropriate Filter Mask/respirator (NIOSH/MSHA Approved).
Skin Protection:	Nitrile/polyethylene gloves, coveralls, avoid cotton products.
Ventilation:	Good general or local exhaust ventilation is required for usage.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form: Soft Paste	Oxidizing Properties: Not available
Color: Gray	Vapor Pressure: Not available
Odor: Light odor	Vapor Density: Not available
Odor Threshold: Not available	Relative Density: 1.94

Boiling Point: Not available Melting Point: Not available Flash Point: >150°C Evaporation Rate: Not available Flammability: Not available Explosion Limits: Not available	Solubility in Water: Not miscible Partition Coefficient: Not available Auto-ignition Temperature: Not available Decomposition Temperature: Not available Viscosity @25°C: >700,000 cps
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SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable under ordinary conditions of use and storage.
Hazard Polymerization:	Will not occur.
Incompatibility:	Strong acids, heat, strong oxidizing agents.
Hazardous Decomposition Products:	Carbon dioxide and carbon monoxide may form when heated to decomposition.
Conditions to Avoid:	Heat, flames, ignition sources and incompatibles.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:	
<i>Oral:</i>	LD50 (rat): >5,000 mg/kg
<i>Dermal:</i>	LD50 (rabbit): >20,000 mg/kg
<i>Inhalation:</i>	No data is available on the product itself.
Corrosivity/Irritation:	
<i>Eyes:</i>	Irritant effect.
<i>Skin:</i>	Irritant to skin and mucous membrane.
<i>Respiratory Tract:</i>	No data available on the product itself.
Skin Sensitization:	Has caused allergic skin reactions in humans.
Chronic Toxicity:	Not classified as a carcinogen.
STOT – Single Exposure:	No data available.
STOT – Repeated Exposure:	Except for skin sensitization, repeated exposures are not anticipated to cause any insignificant adverse effects.
Mutagenicity:	Animal genetic toxicity studies were negative.
Carcinogenicity:	Not classified as a carcinogen.
Reproductive Toxicity:	In animal studies, did not interfere with reproduction.

SECTION 12: ECOLOGICAL INFORMATION

Acute Toxicity:	
<i>Daphnia:</i>	EC50 (48h): 1.4 – 1.7 mg/L
<i>Fish:</i>	LC50 (96h): 3.1 mg/L
<i>The material is moderately toxic to aquatic organisms on an acute basis. Toxicity to aquatic species occurs at concentrations above material's water solubility.</i>	

SECTION 13: DISPOSAL CONSIDERATIONS

Must not be disposed together with household garbage.
Do not discharge into drains or watercourses.
Disposal must be made according to official regulations.

SECTION 14: TRANSPORTATION INFORMATION

IATA-DGR	Not regulated
IMDG	Not regulated

SECTION 15: REGULATORY INFORMATION

Chemical Inventory:	
PICCS (Philippines):	Listed
EINECS (EU):	Listed
KECI (KR):	Listed
TSCA (US):	Listed
DSL (CN):	Listed

SECTION 16: OTHER INFORMATION

The information contained in this MSDS is based on our present knowledge. It was obtained from a variety of sources and is believed to be accurate and current at the stated version date. This data is provided without warranty for the use of this information, application or processing described in this MSDS. Users should note the possibility of hazards occurring due to improper use of the product.

Department issuing MSDS: Research and Development Department

Contact: Marketing Department

ABBREVIATIONS AND ACRONYMS:

PICCS – PHILIPPINE INVENTORY OF CHEMICALS AND CHEMICAL SUBSTANCES

EINECS – EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES

KECI – KOREAN EXISTING CHEMICALS LIST

TSCA – TOXIC SUBSTANCES CONTROL ACT

DSL – DOMESTIC SUBSTANCES LIST

ENCS – JAPANESE EXISTING AND NEW CHEMICALS SUBSTANCES

PART B**SECTION 1: IDENTIFICATION OF PRODUCT AND COMPANY**

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	Skin Corrosion:	Category – Not classified
	Skin Irritation:	Category 2
	Serious Eye Damage/Eye Irritation:	Category 2A
	Sensitization – Skin:	Category 1
	STOT – Single/Repeated Exposure:	Category – Classification not possible
	Aspiration Hazard: Category –	Classification not possible
	Aquatic Toxicity - Acute: Category –	Classification not possible

Hazard Symbol/ Signal Word:**WARNING!****Hazard Statement:**

Maybe harmful if swallowed.

Maybe harmful in contact with skin

Causes skin irritation.

Causes eye irritation.

May cause an allergic skin reaction.

Precautionary Statement:**Prevention:**

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing.

Wear eye/face protection.

Response:

If on skin: Wash with plenty of soap and water

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin/eye irritation occurs: Get medical attention

If skin irritation or rash occurs: Get medical attention

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Identity	CAS no.	Concentration (%)
Triethylenetetramine	112-24-3	0.2 – 1.0
TOFA, reaction products with TEPA	68953-36-6	8.0 – 10.0

SECTION 4: FIRST AID MEASURES

Eye:	Rinse opened eye continuously under running water for at least 30 minutes. Remove the contact lenses after the first 5 minutes and continue washing. If symptoms persist, consult a doctor, preferably from an ophthalmologist.
Skin:	Immediately flush skin with plenty of water for at least 30 minutes. Remove contaminated clothing and shoes. Get medical attention.
Inhalation:	Moved to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:	If swallowed, do not induce vomiting. If vomiting occurs spontaneously, head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point:	>150°C Closed Cup.
Autoignition temperature:	Not available
Extinguishing Media:	Water spray, foam, dry chemical or carbon dioxide.
Special Fire fighting Procedure:	Fire fighters should wear self-contained breathing apparatus.
Hazardous thermal Decomposition Products:	Carbon dioxide, carbon monoxide and oxides of nitrogen.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Remove all sources of ignition.

Wear appropriate personal protective equipment as specified in Section 8.

Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Contain and recover liquid when possible. Use non-sparking tools and equipment.

Collect liquid in an appropriate container or absorb with an inert material (dry sand, earth), and place in a chemical waste container.

Do not use combustible materials, such as saw dust.

Do not flush to sewer. If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.

SECTION 7: HANDLING AND STORAGE

Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute.

Outside or detached storage is preferred.

Separate from incompatibles.

Containers should be bonded and grounded for transfers to avoid static sparks.

Storage and use areas should be *No Smoking areas*.

Use non-sparking type tools and equipment, including explosion proof ventilation.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection: Safety goggles/glasses suitable for use with chemicals.

Respiratory Protection: Always use appropriate Filter Mask/respirator (NIOSH/MSHA Approved).

Skin Protection: Nitrile/polyethylene gloves, coveralls, avoid cotton products.

Ventilation: Good general or local exhaust ventilation is required for usage.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form: Soft Paste Color: Beige Odor: Light odor Odor Threshold: Not available Boiling Point: Not available Melting Point: Not available Flash Point: >150°C Evaporation Rate: Not available Flammability: Not available Explosion Limits: Not available	Oxidizing Properties: Not available Vapor Pressure: Not available Vapor Density: Not available Relative Density: 1.77 Solubility in Water: Not miscible Partition Coefficient: Not available Auto-ignition Temperature: Not available Decomposition Temperature: Not available Viscosity @25°C: >1,000,000 cps
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SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable under ordinary conditions of use and storage.
Hazard Polymerization:	Will not occur.
Incompatibility:	Strong acids, heat, strong oxidizing agents.
Hazardous Decomposition	
Products:	Carbon dioxide and carbon monoxide may form when heated to decomposition.
Conditions to Avoid:	Heat, flames, ignition sources and incompatibles.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: No data is available on the product itself.

- *Triethylenetetramine*

<i>Oral</i>	LD50 (rat): 2,780 mg/kg
<i>Dermal:</i>	LD50 (rabbit): 550 – 805 mg/kg
<i>Inhalation:</i>	No data is available on the product itself.

- *3,6,9-Triazaundecamethylenediamine*

<i>Oral:</i>	LD50 (rat): 3,300 mg/kg
<i>Inhalation:</i>	No data is available

Corrosivity/Irritation:

<i>Eyes:</i>	May cause eye irritation
<i>Skin:</i>	May cause skin irritation
<i>Respiratory Tract:</i>	No data available on the product itself

Skin Sensitization: Sensitization has occurred in laboratory animals after repeated exposure.

Aspiration Hazard: No data available on the product itself

Chronic Toxicity: No data available on the product itself

STOT – Single Exposure: No data available on the product itself

STOT – Repeated Exposure: No data available on the product itself

Mutagenicity: Results from a battery of short term genotoxicity tests on this material or its components indicate mutagenic activity.

Carcinogenicity: No data available.

SECTION 12: ECOLOGICAL INFORMATION

Aquatic Toxicity: No data is available on the product itself

SECTION 13: DISPOSAL CONSIDERATIONS

Must not be disposed together with household garbage.

Do not discharge into drains or watercourses.

Disposal must be made according to official regulations.

SECTION 14: TRANSPORTATION INFORMATION

IATA-DGR Not regulated

IMDG Not regulated

SECTION 15: REGULATORY INFORMATION

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Department issuing MSDS: *Research and Development Department*

Contact: *Marketing Department*

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