

SAFETY DATA SHEET EPO-TEK 353ND-T4 Part A

1. Identification

Product identifier

Product name EPO-TEK 353ND-T4 Part A

Product number 353ND-T4/A

Recommended use of the chemical and restrictions on use

Adhesive. Application

Details of the supplier of the safety data sheet

Supplier

Epoxy Technology, Inc. 14 Fortune Drive Billerica, MA 01821

USA

(978) 667-3805 (978) 663-9782

www.epotek.com, SDS@epotek.com

Emergency telephone number

Emergency telephone +1 (800) 255-3924, +1 (813) 248-0585

2. Hazard(s) identification

Classification of the substance or mixture

Not Classified Physical hazards

Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317 STOT SE 1 -

Environmental hazards Aquatic Chronic 2 - H411

Label elements

Pictogram







Signal word

Danger

Hazard statements H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H370 Causes damage to organs.

H411 Toxic to aquatic life with long lasting effects.

EPO-TEK 353ND-T4 Part A

Precautionary statements P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P302+P352 If on skin: Wash with plenty of water.

P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.

P308+P311 If exposed or concerned: Call a poison center or doctor.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P501 Dispose of contents/ container in accordance with national regulations.

Contains Epoxy Phenol Novolac, Polar Activator

Other hazards

Hazards not otherwise classified (HNOC)

Contains epoxy constituents. May produce an allergic reaction.

3. Composition/information on ingredients

Mixtures

Epoxy Phenol Novolac 60-100% CAS number: 9003-36-5

Classification

Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411

Polar Activator 1-5%

CAS number: Proprietary

Classification

Flam. Liq. 2 - H225 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT SE 1 - H370

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical

attention if any discomfort continues.

Ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse

mouth thoroughly with water. Get medical attention if any discomfort continues.

Skin Contact Remove affected person from source of contamination. Remove contaminated clothing. Wash

skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye contact Remove affected person from source of contamination. Remove any contact lenses and open

eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed

General information Causes damage to organs.

EPO-TEK 353ND-T4 Part A

Inhalation Harmful if inhaled. Vapors may cause headache, fatigue, dizziness and nausea. Inhalation of

dust during cutting, grinding or sanding operations involving this product may cause irritation

of the respiratory tract.

Ingestion May cause discomfort if swallowed.

Skin contact Causes skin irritation. May cause sensitisation by skin contact.

Eye contact Causes serious eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Dry chemicals. Foam. Carbon dioxide (CO2). Water spray.

Special hazards arising from the substance or mixture

Hazardous combustion

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or

vapors.

Advice for firefighters

Protective actions during

firefighting

Avoid breathing fire gases or vapors. Cool containers exposed to heat with water spray and

remove them from the fire area if it can be done without risk.

Special protective equipment

for firefighters

products

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective

clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Avoid release to the

environment.

Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into

containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering

drains, sewers or watercourses.

Reference to other sections For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Handle all packages and containers carefully to minimize spills. Avoid inhalation of vapors and

contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety

data sheet.

Advice on general occupational hygiene

Do not eat, drink or smoke when using this product. Wash promptly with soap and water if skin becomes contaminated. Wash after use and before eating, smoking and using the toilet. Wash contaminated clothing before reuse. Use appropriate skin cream to prevent drying of

skin.

Conditions for safe storage, including any incompatibilities

Storage precautions Store at room temperature. Keep container tightly sealed when not in use.

Storage class Chemical storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

Polar Activator

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm Short-term exposure limit (15-minute): ACGIH 250 ppm

ACGIH = American Conference of Governmental Industrial Hygienists.

Exposure controls

Protective equipment





Appropriate engineering

controls

Provide adequate general and local exhaust ventilation. Avoid inhalation of vapors.

Eye/face protection Wear tight-fitting, chemical splash goggles or face shield.

Other skin and body

protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures Provide eyewash station. Do not smoke in work area. Wash at the end of each work shift and

before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat,

drink or smoke.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Paste.

Color Tan.
Odor Mild.

Flash point > 93°C

Vapor density >1

Solubility(ies) Slightly soluble in water.

Other information None.

10. Stability and reactivity

Reactivity The following materials may react with the product: Strong oxidizing agents. Strong reducing

agents.

Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous

reactions

Will not polymerize.

Conditions to avoid Avoid excessive heat for prolonged periods of time.

Materials to avoid Strong oxidizing agents. Strong reducing agents.

Hazardous decomposition

products

Thermal decomposition or combustion products may include the following substances:

Carbon monoxide (CO). Carbon dioxide (CO2).

11. Toxicological information

Information on toxicological effects

Inhalation Harmful if inhaled. Vapors may cause headache, fatigue, dizziness and nausea. Inhalation of

dust during cutting, grinding or sanding operations involving this product may cause irritation

of the respiratory tract.

Ingestion May cause discomfort if swallowed.

Skin Contact May cause sensitisation by skin contact. Irritating to skin.

Eye contact Causes serious eye irritation.

Acute and chronic health

hazards

Causes damage to organs.

12. Ecological Information

Ecotoxicity Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Acute toxicity - fish Not available.

Persistence and degradability

Persistence and degradability No data available.

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Mobility in soil

Mobility The product has poor water-solubility.

Other adverse effects

Other adverse effects Not known.

13. Disposal considerations

Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the

local Waste Disposal Authority.

14. Transport information

UN Number

 UN No. (TDG)
 3082

 UN No. (IMDG)
 3082

 UN No. (ICAO)
 3082

UN No. (DOT) UN3082

UN proper shipping name

Proper shipping name (TDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Epoxy

Phenol Novolac)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Epoxy

Phenol Novolac)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Epoxy

Phenol Novolac)

Proper shipping name (DOT) ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS Epoxy

Phenol Novolac)

Transport hazard class(es)

DOT hazard class 9

DOT hazard label 9

TDG class 9

TDG label(s) 9

IMDG Class 9

ICAO class/division 9

Transport labels



DOT transport labels

Packing group

TDG Packing Group III

IMDG packing group

ICAO packing group III

DOT packing group

Environmental hazards

Environmentally Hazardous Substance

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Special precautions for user

EmS F-A, S-F

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

Regulatory References Proprietary information protected pursuant to WTO's Agreement on Trade-Related Aspects of

Intellectual Property Rights (TRIPS), Section 7, Art. 39.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are required to be listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed:

Polar Activator

5,000 lbs (2270 Kg)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are required to be listed.

SARA 313 Emission Reporting

The following ingredients are listed:

Polar Activator

CAA Accidental Release Prevention

None of the ingredients are required to be listed.

OSHA Highly Hazardous Chemicals

None of the ingredients are required to be listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are required to be listed.

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed:

Polar Activator

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are required to be listed.

Massachusetts "Right To Know" List

The following ingredients are listed:

Polar Activator

Rhode Island "Right To Know" List

The following ingredients are listed:

Polar Activator

Minnesota "Right To Know" List

The following ingredients are listed:

Polar Activator

New Jersey "Right To Know" List

The following ingredients are listed:

Polar Activator

Pennsylvania "Right To Know" List

The following ingredients are listed:

Polar Activator

Inventories

EU-EINECS/ELINCS

Some of the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed.

Australia - AICS

All the ingredients are listed or exempt.

Japan - MITI

Some of the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines - PICCS

All the ingredients are listed or exempt.

16. Other information

Revision date 3/29/2017

Revision 2

Supersedes date 2/18/2015

Hazard statements in full H225 Highly flammable liquid and vapor.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H370 Causes damage to organs.

H411 Toxic to aquatic life with long lasting effects.

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Epoxy Technology, Inc. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Epoxy Technology, Inc. accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.



SAFETY DATA SHEET EPO-TEK 353ND-T4 Part B

1. Identification

Product identifier

Product name EPO-TEK 353ND-T4 Part B

Product number 353ND-T4/B

Recommended use of the chemical and restrictions on use

Application Adhesive.

Details of the supplier of the safety data sheet

Supplier

Epoxy Technology, Inc. 14 Fortune Drive Billerica, MA 01821

USA

(978) 667-3805 (978) 663-9782

www.epotek.com, SDS@epotek.com

Emergency telephone number

Emergency telephone +1 (800) 255-3924, +1 (813) 248-0585

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Repr. 1B - H360

Environmental hazards Not Classified

Human health Contains a substance/a group of substances which may damage the unborn child.

Label elements

Pictogram







Signal word

Danger

Hazard statements H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage. H360 May damage fertility or the unborn child.

Precautionary statements P280 Wear protective gloves/ protective clothing/ eye protection.

P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse

skin with water/ shower.

P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P501 Dispose of contents/ container in accordance with national regulations.

Contains Substituted Imidazole Blend, Imidazole

Other hazards

None.

3. Composition/information on ingredients

Mixtures

Substituted Imidazole Blend

CAS number: Proprietary

60-100%

Classification

Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Imidazole 30-60%

CAS number: 288-32-4

Classification

Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Repr. 1B - H360

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation Move affected person to fresh air at once. Get medical attention. Move affected person to

fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not

induce vomiting. Remove affected person from source of contamination. Give plenty of water to drink. Get medical attention immediately. Move affected person to fresh air and keep warm

and at rest in a position comfortable for breathing.

Skin Contact Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical

attention if irritation persists after washing.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15

minutes. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms

occur after washing.

Most important symptoms and effects, both acute and delayed

EPO-TEK 353ND-T4 Part B

Inhalation Inhalation of dust during cutting, grinding or sanding operations involving this product may

cause irritation of the respiratory tract. Gas or vapor in high concentrations may irritate the

respiratory system.

Ingestion Harmful if swallowed. May cause stomach pain or vomiting. May cause chemical burns in

mouth and throat.

Skin contact Causes severe burns.

Eye contact Causes serious eye damage.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Special hazards arising from the substance or mixture

Hazardous combustion

products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or

vapors.

Advice for firefighters

Protective actions during

firefighting

Avoid breathing fire gases or vapors.

Special protective equipment

for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective

clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots,

clothing or apron, as appropriate.

Environmental precautions

Environmental precautions Avoid release to the environment.

Methods and material for containment and cleaning up

Methods for cleaning upCollect and place in suitable waste disposal containers and seal securely.

Reference to other sections For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Handle all packages and containers carefully to minimize spills. Avoid contact with skin and

eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

Advice on general occupational hygiene

Provide eyewash station and safety shower. Do not eat, drink or smoke when using this product. Wash promptly if skin becomes contaminated. Wash after use and before eating, smoking and using the toilet. Wash contaminated clothing before reuse. Use appropriate skin

cream to prevent drying of skin.

Conditions for safe storage, including any incompatibilities

Storage precautions Store at room temperature. Keep container tightly sealed when not in use.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Ingredient comments No exposure limits known for ingredient(s).

Exposure controls

Protective equipment





Appropriate engineering

controls

Provide adequate general and local exhaust ventilation.

Eye/face protection Wear tight-fitting, chemical splash goggles or face shield.

Hand protection It is recommended that chemical-resistant, impervious gloves are worn.

Other skin and body

protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures Do not smoke in work area. Wash at the end of each work shift and before eating, smoking

and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to

prevent drying of skin. When using do not eat, drink or smoke.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Liquid.

Color Amber.

Odor Slight. Flash point > 93°C

Evaporation rate <BuAc

Vapor density >1

Solubility(ies) Slightly soluble in water.

Other information None.

10. Stability and reactivity

Reactivity The following materials may react with the product: Acids. Alkalis. Strong oxidizing agents.

Strong reducing agents.

Stability Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous

reactions

Will not polymerize.

EPO-TEK 353ND-T4 Part B

Conditions to avoid Avoid exposure to high temperatures or direct sunlight. Avoid heat, flames and other sources

of ignition.

Materials to avoid Strong oxidizing agents. Strong reducing agents. Strong acids. Strong alkalis.

Hazardous decomposition

products

 $Thermal\ decomposition\ or\ combustion\ products\ may\ include\ the\ following\ substances:$

Carbon monoxide (CO). Carbon dioxide (CO2).

11. Toxicological information

Information on toxicological effects

Inhalation Gas or vapor in high concentrations may irritate the respiratory system.

Ingestion Harmful if swallowed.

Skin Contact Causes burns.

Eye contact Causes burns.

12. Ecological Information

Acute toxicity - fish Not available.

Persistence and degradability

Persistence and degradability The product is moderately biodegradable.

Bioaccumulative potential

Bio-Accumulative Potential The product contains potentially bioaccumulating substances.

Mobility in soil

Mobility Semi-mobile.

Other adverse effects

Other adverse effects Not known.

13. Disposal considerations

Waste treatment methods

Disposal methodsDispose of waste to licensed waste disposal site in accordance with the requirements of the

local Waste Disposal Authority.

14. Transport information

UN Number

UN No. (TDG) 3267

UN No. (IMDG) 3267

UN No. (ICAO) 3267

UN No. (DOT) UN3267

UN proper shipping name

Proper shipping name (TDG) CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)

Proper shipping name (IMDG) CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)

Proper shipping name (ICAO) CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)

Proper shipping name (DOT) CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)

Transport hazard class(es)

DOT hazard class 8

DOT hazard label 8

TDG class 8

TDG label(s) 8

IMDG Class 8

ICAO class/division 8

Transport labels



DOT transport labels



Packing group

TDG Packing Group Ш

IMDG packing group Ш

ICAO packing group Ш

DOT packing group Ш

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

EmS F-A, S-B

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

Regulatory References Proprietary information protected pursuant to WTO's Agreement on Trade-Related Aspects of

Intellectual Property Rights (TRIPS), Section 7, Art. 39.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

None of the ingredients are listed.

CAA Accidental Release Prevention

None of the ingredients are listed.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed.

Massachusetts "Right To Know" List

None of the ingredients are listed.

Rhode Island "Right To Know" List

None of the ingredients are listed.

Minnesota "Right To Know" List

None of the ingredients are listed.

New Jersey "Right To Know" List

None of the ingredients are listed.

Pennsylvania "Right To Know" List

None of the ingredients are listed.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US-TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed.

Australia - AICS

All the ingredients are listed or exempt.

Japan - MITI

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines - PICCS

All the ingredients are listed or exempt.

16. Other information

Revision date 3/29/2017

Revision 2

Supersedes date 2/18/2015

Hazard statements in full H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H360 May damage fertility or the unborn child.

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Epoxy Technology, Inc. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Epoxy Technology, Inc. accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.