

CONATHANE® CE-1164 Conformal Coating

Version 5

Revision Date 04/27/2022

Print Date 04/27/2022

SECTION 1. IDENTIFICATION

Product name : CONATHANE® CE-1164 Conformal Coating

Manufacturer or supplier's details

Company : ELANTAS PDG, INC.
5200 North 2nd Street
St. Louis MO 63147

Telephone : (314) 621-5700

Visit our web site : www.elantas.com

E-mail address : Todd.Thomas@altana.com

Emergency telephone number : INFOTRAC - 1-800-535-5053

Recommended use of the chemical and restrictions on use

Recommended use : Electrical Insulation

Restrictions on use : This product is for industrial use only. It is not intended for consumer use or retail sale.
Refer to Section 15 for any restrictions that may apply

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquids : Category 2

Skin irritation : Category 2

Carcinogenicity : Category 2

Reproductive toxicity : Category 2

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

Specific target organ toxicity - repeated exposure : Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.

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Precautionary statements

H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

: **Prevention:**

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/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

: Polyurethane Resin Solution

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Hazardous components

Component	CAS-No.	Concentration (%)
1-Methoxy-2-propanol acetate	108-65-6	>= 24 - < 25
Toluene	108-88-3	>= 13 - < 14
m-xylene	108-38-3	>= 5 - < 6
p-xylene	106-42-3	>= 2 - < 3
Ethyl benzene	100-41-4	>= 2 - < 3
o-xylene	95-47-6	>= 1 - < 2

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.
- If inhaled : Call a physician or poison control centre immediately.
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing : High volume water jet

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Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma,

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allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage : Store under conditions specified on the product Technical Data Sheet to maintain product quality.
Prevent unauthorized access.
No smoking.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
1-Methoxy-2-propanol acetate	108-65-6	TWA	50 ppm	US WEEL
Toluene	108-88-3	TWA	20 ppm	ACGIH
Toluene		TWA	200 ppm	OSHA Z-2
Toluene		CEIL	300 ppm	OSHA Z-2
Toluene		Peak	500 ppm	OSHA Z-2
Toluene		TWA	100 ppm 375 mg/m ³	OSHA P0
Toluene		STEL	150 ppm 560 mg/m ³	OSHA P0
m-xylene	108-38-3	TWA	100 ppm 435 mg/m ³	NIOSH REL
m-xylene		ST	150 ppm 655 mg/m ³	NIOSH REL
m-xylene		TWA	100 ppm 435 mg/m ³	OSHA Z-1
m-xylene		STEL	150 ppm 655 mg/m ³	OSHA P0
m-xylene		TWA	100 ppm 435 mg/m ³	OSHA P0
m-xylene		TWA	100 ppm	ACGIH
m-xylene		STEL	150 ppm	ACGIH
p-xylene	106-42-3	TWA	100 ppm 435 mg/m ³	NIOSH REL
p-xylene		ST	150 ppm 655 mg/m ³	NIOSH REL
p-xylene		TWA	100 ppm	OSHA Z-1

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			435 mg/m3	
p-xylene		STEL	150 ppm 655 mg/m3	OSHA P0
p-xylene		TWA	100 ppm 435 mg/m3	OSHA P0
p-xylene		TWA	100 ppm	ACGIH
p-xylene		STEL	150 ppm	ACGIH
Ethyl benzene	100-41-4	TWA	20 ppm	ACGIH
Ethyl benzene		TWA	100 ppm 435 mg/m3	OSHA Z-1
Ethyl benzene		TWA	100 ppm 435 mg/m3	OSHA P0
Ethyl benzene		STEL	125 ppm 545 mg/m3	OSHA P0
o-xylene	95-47-6	TWA	100 ppm 435 mg/m3	NIOSH REL
o-xylene		ST	150 ppm 655 mg/m3	NIOSH REL
o-xylene		TWA	100 ppm 435 mg/m3	OSHA Z-1
o-xylene		STEL	150 ppm 655 mg/m3	OSHA P0
o-xylene		TWA	100 ppm 435 mg/m3	OSHA P0
o-xylene		TWA	100 ppm	ACGIH
o-xylene		STEL	150 ppm	ACGIH

Engineering measures

: Use with adequate ventilation.
 All application areas should be ventilated in accordance with applicable OSHA regulations. (e.g. 29 CFR 1910.94)
 Isocyanates may be released during the curing process.
 Repeated overexposure to isocyanates can cause respiratory tract sensitization.

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection
 Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
 Tightly fitting safety goggles
 Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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Hygiene measures : Avoid contact with skin, eyes and clothing.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Boiling point/boiling range : > 95 °F (> 35 °C)

Vapour pressure : No data available

Flash point : 70 °F (21 °C)
Method: ASTM D 93

Upper explosion limit : No data available

Lower explosion limit : No data available

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Relative vapour density : No data available

Relative Density/Specific Gravity : No data available

Density : 1.0497 g/cm³ (77 °F (25 °C))

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Ignition temperature : No data available

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Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : > 21 mm²/s (104 °F (40 °C))

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
Contact with water liberates highly flammable gases.

No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

Conditions to avoid : Heat, flames and sparks.

Hazardous decomposition products : Carbon monoxide in a fire.
Nitrogen oxides in a fire.
Isocyanates

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 91.94 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:**108-65-6 1-Methoxy-2-propanol acetate:**

Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg
Method: OECD Test Guideline 401

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GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 100 ppm
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

108-88-3 Toluene:

Acute oral toxicity : LD50 (Rat): 2,600 mg/kg

108-38-3 m-xylene:

Acute oral toxicity : LD50 (Rat): 4,988 mg/kg

Acute inhalation toxicity : LC50 (Mouse): 5267 ppm
Exposure time: 6.00 h

Acute dermal toxicity : LD50 (Rabbit): 14.1 mg/kg

106-42-3 p-xylene:

Acute oral toxicity : LD50 (Rat): 3,910 mg/kg

Acute inhalation toxicity : LC50 (Rat): 4550 ppm
Exposure time: 4.00 h

Acute dermal toxicity : Remarks: No data available

100-41-4 Ethyl benzene:

Acute oral toxicity : LD50 (Rat): 3,500 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 5,510 mg/kg

95-47-6 o-xylene:

Acute oral toxicity : LD50 (Rat): 3,567 mg/kg

Acute inhalation toxicity : LC50 (Mouse): 4595 ppm
Exposure time: 6.00 h

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation**Product:**

Remarks: May cause skin irritation and/or dermatitis.

Components:**108-65-6 1-Methoxy-2-propanol acetate:**

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

GLP: yes

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108-38-3 m-xylene:

Species: Rabbit

Exposure time: 24.00 h

Result: Severe skin irritation

106-42-3 p-xylene:

Remarks: No data available

100-41-4 Ethyl benzene:

Species: Rabbit

Result: Moderate skin irritation

95-47-6 o-xylene:

Remarks: No data available

Serious eye damage/eye irritation**Product:**

Remarks: May cause irreversible eye damage.

Components:**108-65-6 1-Methoxy-2-propanol acetate:**

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

GLP: yes

108-38-3 m-xylene:

Species: Rabbit

Result: Severe eye irritation

Exposure time: 24.00 h

Method: Draize Test

106-42-3 p-xylene:

Remarks: No data available

100-41-4 Ethyl benzene:

Species: Rabbit

Result: Moderate eye irritation

95-47-6 o-xylene:

Remarks: No data available

Respiratory or skin sensitisation**Product:**

Remarks: Causes sensitisation.

Components:**108-65-6 1-Methoxy-2-propanol acetate:**

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Species: Guinea pig
Method: OECD Test Guideline 406
Result: Not a skin sensitizer.
GLP: yes

Carcinogenicity**IARC**

Group 2B: Possibly carcinogenic to humans

Ethyl benzene

100-41-4

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information**Product:**

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological

: No data available

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SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

: WC: A

EPA Hazardous Waste
Code(s)

: D001: Ignitable

Waste from residues

: Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with
chemical or used container.
Send to a licensed waste management company.

Contaminated packaging

: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.**SECTION 14. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

UN/ID No. : UN 1866
Proper shipping name : Resin solution
Class : 3
Packing group : II
Labels : Flammable Liquids
Packing instruction (cargo
aircraft) : 364
Packing instruction
(passenger aircraft) : 353

IMDG-Code

UN number : UN 1866
Proper shipping name : RESIN SOLUTION
Class : 3
Packing group : II
Labels : 3
EmS Code : F-E, S-E
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations**49 CFR**

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UN/ID/NA number : UN 1866
 Proper shipping name : Resin solution
 Class : 3
 Packing group : II
 Labels : FLAMMABLE LIQUID
 ERG Code : 127
 Marine pollutant : no

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act****US. EPA CERCLA Hazardous Substances (40 CFR 302)**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
p-xylene	106-42-3	100	4167

SARA 304 - Emergency Release Notification

Calculated RQ exceeds reasonably attainable upper limit.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

Calculated RQ exceeds reasonably attainable upper limit.

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

Toluene	108-88-3	13.0 %
m-xylene	108-38-3	5.5 %
p-xylene	106-42-3	2.4 %
Ethyl benzene	100-41-4	2.2 %
o-xylene	95-47-6	1.7 %

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

Toluene	108-88-3	13.0 %
m-xylene	108-38-3	5.5 %
p-xylene	106-42-3	2.4 %
Ethyl benzene	100-41-4	2.2 %
o-xylene	95-47-6	1.7 %

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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489):

Toluene	108-88-3	13.0 %
p-xylene	106-42-3	2.4 %
Ethyl benzene	100-41-4	2.2 %
o-xylene	95-47-6	1.7 %

Non-volatile (Wt) : Refer to the product technical data sheet for VOC information.

Massachusetts Right To Know

Toluene	108-88-3
m-xylene	108-38-3
p-xylene	106-42-3
Ethyl benzene	100-41-4
o-xylene	95-47-6
Toluene diisocyanate	584-84-9
2-Methyl-m-phenylene diisocyanate	91-08-7
Propylene oxide	75-56-9

Pennsylvania Right To Know

Polyurethane Resin	-
1-Methoxy-2-propanol acetate	108-65-6
Toluene	108-88-3
m-xylene	108-38-3
p-xylene	106-42-3
Ethyl benzene	100-41-4
o-xylene	95-47-6
Toluene diisocyanate	584-84-9
2-Methyl-m-phenylene diisocyanate	91-08-7
Propylene oxide	75-56-9

New Jersey Right To Know

Polyurethane Resin	-
1-Methoxy-2-propanol acetate	108-65-6
Toluene	108-88-3
m-xylene	108-38-3
p-xylene	106-42-3
Ethyl benzene	100-41-4
o-xylene	95-47-6

New Jersey Trade Secret Registry Number for the product (NJ TSNR) : Not Applicable

California Prop. 65

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⚠ WARNING: This product can expose you to chemicals including Ethyl benzene, Propylene oxide, Benzene, which is/are known to the State of California to cause cancer, and Toluene, Benzene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

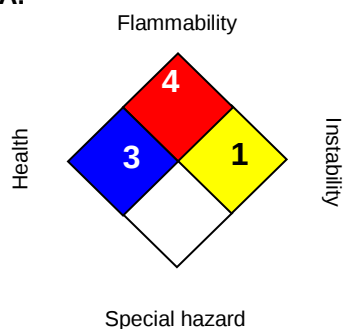
The components of this product are reported in the following inventories:

TSCA : All components of this product are listed active and/or are exempt

Section 4 / 12(b) : Not applicable

Section 5 : Not applicable

Section 6 : Not applicable

SECTION 16. OTHER INFORMATION**Further information****NFPA:****HMIS III:**

HEALTH	3*
FLAMMABILITY	3
PHYSICAL HAZARD	1

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.