

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

**SECTION 1. IDENTIFICATION**

Product name : RanVar™ B277-1

**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](http://www.elantas.com)  
E-mail address : [Todd.Thomas@altana.com](mailto: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 : Refer to Section 15 for any restrictions that may apply

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Flammable liquids : Category 3

Acute toxicity (Inhalation) : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

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 (Kidney, Liver)

**GHS Label element**

Hazard pictograms :



Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 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 (Kidney, Liver) through prolonged or repeated exposure.

## Precautionary statements

: **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/ eye protection/ face protection.  
 P281 Use personal protective equipment as required.

**Response:**

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
 P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
 P337 + P313 If eye irritation persists: 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 for extinction.

**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

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

disposal plant.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature : Modified Alkyd Resin Solution

**Hazardous components**

Component	CAS-No.	Concentration (%)
Xylene	1330-20-7	>= 50 - < 51
Ethylbenzene	100-41-4	>= 12 - < 13
Toluene	108-88-3	>= 0 - < 1
Cumene	98-82-8	>= 0 - < 1

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.  
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**

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

- Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- 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.

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

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.

Conditions for safe storage : Store under conditions specified on the product Technical Data Sheet to maintain product quality.  
 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
Xylene	1330-20-7	TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA Z-1
		STEL	150 ppm 655 mg/m <sup>3</sup>	OSHA P0
		TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA P0
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
Ethylbenzene	100-41-4	TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA Z-1
		TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA P0
		STEL	125 ppm 545 mg/m <sup>3</sup>	OSHA P0
Toluene	108-88-3	TWA	20 ppm	ACGIH
		TWA	200 ppm	OSHA Z-2
		CEIL	300 ppm	OSHA Z-2
		Peak	500 ppm	OSHA Z-2
		TWA	100 ppm 375 mg/m <sup>3</sup>	OSHA P0
		STEL	150 ppm 560 mg/m <sup>3</sup>	OSHA P0
Cumene	98-82-8	TWA	50 ppm	ACGIH
		TWA	50 ppm	OSHA Z-1

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

			245 mg/m3	
		TWA	50 ppm	OSHA P0
			245 mg/m3	

**Engineering measures** : Use with adequate ventilation.  
 All application areas should be ventilated in accordance with applicable OSHA regulations. (29 CFR 1910.94)  
 Formaldehyde may be released during the curing process. Formaldehyde is a suspected human carcinogen and a skin and respiratory sensitizer. Prolonged or repeated exposure to vapors may result in respiratory impairment and/or liver, kidney or heart effects.

**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.

Hygiene measures : When using do not eat or drink.  
 When using do not smoke.  
 Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : 75.2 °F (24.0 °C)  
 Method: ASTM D 93, closed cup

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative Density/Specific Gravity	: No data available
Density	: 0.9287 g/cm <sup>3</sup> (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
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: Greater than 22 mm <sup>2</sup> /s (104 °F (40 °C))

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: 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.

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

Hazardous decomposition products : Burning and elevated temperatures may produce carbon monoxide, carbon dioxide and formaldehyde vapors.

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

Inhalation  
 Skin contact  
 Skin absorption  
 Eyes

**Acute toxicity****Product:**

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

Acute inhalation toxicity : Acute toxicity estimate : 7728 ppm  
 Exposure time: 4 h  
 Test atmosphere: gas  
 Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 3,368 mg/kg  
 Method: Calculation method

**Components:****1330-20-7 Xylene:**

Acute oral toxicity : LD50 (Rat, male): 3,523 mg/kg  
 Method: Directive 67/548/EEC, Annex V, B.1.

Acute inhalation toxicity : LC50 (Rat): 5000 ppm  
 Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): 1,700 mg/kg

**100-41-4 Ethylbenzene:**

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

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

**108-88-3 Toluene:**

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

**98-82-8 Cumene:**

Acute oral toxicity : LD50 (Rat): 1,400 mg/kg

Acute inhalation toxicity : LC50 : Remarks: No data available

Acute dermal toxicity : LD50 : Remarks: No data available

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

**Skin corrosion/irritation****Product:**

Remarks: May cause skin irritation in susceptible persons.

**Components:****1330-20-7 Xylene:**

Species: Rabbit

Result: Moderate skin irritation

**100-41-4 Ethylbenzene:**

Species: Rabbit

Result: Moderate skin irritation

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

Remarks: May cause irreversible eye damage.

**Components:****1330-20-7 Xylene:**

Species: Rabbit

Result: Eye irritation

**100-41-4 Ethylbenzene:**

Species: Rabbit

Result: Moderate eye irritation

**Respiratory or skin sensitisation****Carcinogenicity****IARC**

Group 2B: Possibly carcinogenic to humans

Ethylbenzene

100-41-4

Cumene

98-82-8

**ACGIH**

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

**OSHA**

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

**NTP**

Reasonably anticipated to be a human carcinogen

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

Cumene

98-82-8

**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 information

: No data available

**SECTION 13. DISPOSAL CONSIDERATIONS**
**Disposal methods**

EPA Hazardous Waste Code(s)

: D001: Ignitable  
D018: Benzene

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.

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

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 Regulation**
**IATA-DGR**

UN/ID No. : UN 1866  
 Proper shipping name : Resin solution  
 Class : 3  
 Packing group : III  
 Labels : Flammable liquid  
 Packing instruction (cargo aircraft) : 366  
 Packing instruction (passenger aircraft) : 355

**IMDG-Code**

UN number : UN 1866  
 Proper shipping name : RESIN SOLUTION  
 Class : 3  
 Packing group : III  
 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**

UN/ID/NA number : UN 1866  
 Proper shipping name : Resin solution  
 Class : 3  
 Packing group : III  
 Labels : Flammable liquid  
 ERG Code : 127  
 Marine pollutant : no

**SECTION 15. REGULATORY INFORMATION**
**EPCRA - Emergency Planning and Community Right-to-Know Act**
**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ	Calculated product RQ

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

		(lbs)	(lbs)
Xylene	1330-20-7	100	198

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

Calculated RQ exceeds reasonably attainable upper limit.

**SARA 302 Extremely Hazardous Substances Reportable Quantity**

Calculated RQ exceeds reasonably attainable upper limit.

**SARA 311/312 Hazards** : Acute Health Hazard  
 Chronic Health Hazard  
 Fire Hazard

**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.

Xylene	1330-20-7	50.4 %
Ethylbenzene	100-41-4	12.8 %

**Clean Air Act**

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Xylene	1330-20-7	50.4 %
Ethylbenzene	100-41-4	12.8 %

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 I Intermediate or Final VOC's (40 CFR 60.489):

Xylene	1330-20-7	50.4 %
Ethylbenzene	100-41-4	12.8 %

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

**Massachusetts Right To Know**

Xylene	1330-20-7
Ethylbenzene	100-41-4
Benzene	71-43-2
Hydroquinone	123-31-9
Formaldehyde	50-00-0

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

**Pennsylvania Right To Know**

Xylene	1330-20-7
Modified alkyd	Not Assigned
Ethylbenzene	100-41-4
Toluene	108-88-3
Cumene	98-82-8

**New Jersey Right To Know**

Xylene	1330-20-7
Modified alkyd	Not Assigned
Ethylbenzene	100-41-4
Toluene	108-88-3

**New Jersey Trade Secret Registry Number for the product (NJ TSRN)** : NOT APPLICABLE

**California Prop 65**

WARNING! This product contains a chemical known to the State of California to cause cancer.

Ethylbenzene	100-41-4
Cumene	98-82-8
Benzene	71-43-2
Formaldehyde	50-00-0

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Toluene	108-88-3
Benzene	71-43-2
Methanol	67-56-1

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

TSCA : We certify that all of the components of this product are either listed on the TSCA Inventory or are not subject to the notification requirements per 40 CFR 720 30(h).

Section 4 / 12(b) : Not applicable

Section 5 : Not applicable

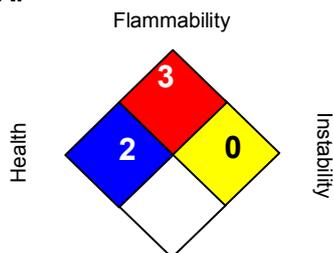
DSL : We certify that all of the components of this product are listed on the DSL.

**RanVar™ B277-1**

Version 4

Revision Date 07/20/2015

Print Date 07/20/2015

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

<b>HEALTH</b>	<b>2*</b>
<b>FLAMMABILITY</b>	<b>3</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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

Revision Date : 07/20/2015

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.