

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

**SECTION 1. IDENTIFICATION**

Product name : ELAN-Tron® C 301 Hardener

**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**

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 2

Acute toxicity (Dermal) : Category 4

Skin corrosion : Category 1B

Serious eye damage : Category 1

Skin sensitisation : Category 1

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

**GHS Label element**

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 + H312 Harmful if swallowed or in contact with skin  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

H330 Fatal if inhaled.  
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P284 Wear respiratory protection.

**Response:**  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P363 Wash contaminated clothing before reuse.

**Storage:**  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
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 : Aliphatic Amine

**Hazardous components**

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

Component	CAS-No.	Concentration (%)
Diethylenetriamine	111-40-0	>= 99 - <= 100
Aliphatic amine	140-31-8	>= 0 - < 1

**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 : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.  
 If on skin, rinse well with water.  
 If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
 In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 Continue rinsing eyes during transport to hospital.  
 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 induce vomiting.  
 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**

- 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.

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

- 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.
- 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. Evacuate personnel to safe 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 : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

**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. Provide sufficient air exchange and/or exhaust in work rooms. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, 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. 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.

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

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
Diethylenetriamine	111-40-0	TWA	1 ppm	ACGIH
		TWA	1 ppm 4 mg/m <sup>3</sup>	OSHA P0

**Engineering measures** : Use with adequate ventilation.  
 All application areas should be ventilated in accordance with applicable OSHA regulations. (29 CFR 1910.94)

**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 : 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

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: Greater than 201 °F (94 °C) Method: No information available. Information taken from reference works and the literature.
Evaporation rate	: 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	: 0.94 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

**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.

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

Conditions to avoid : No data available

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

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

Inhalation  
Skin contact  
Eyes

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

Acute oral toxicity : Acute toxicity estimate : 1,083 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 0.5 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 1,056 mg/kg  
Method: Calculation method

**Components:****111-40-0 Diethylenetriamine:**

Acute oral toxicity : LD50 (Rat): 1,080 mg/kg

Acute inhalation toxicity : LC50 : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit): 1,050 mg/kg

**140-31-8 Aliphatic amine:**

Acute oral toxicity : LD50 (Rat, male): 2,097 mg/kg

Acute dermal toxicity : LD50 (Rabbit, male): 866 mg/kg

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

Remarks: Extremely corrosive and destructive to tissue.

**Components:****111-40-0 Diethylenetriamine:**

Species: Rabbit  
Result: Corrosive to skin

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

**140-31-8 Aliphatic amine:**

Species: Rabbit

Result: Corrosive

**Serious eye damage/eye irritation**

**Product:**

Remarks: May cause irreversible eye damage.

**Components:**

**111-40-0 Diethylenetriamine:**

Species: Rabbit

Result: Corrosive to eyes

**140-31-8 Aliphatic amine:**

Species: Rabbit

Result: Risk of serious damage to eyes.

**Respiratory or skin sensitisation**

**Product:**

Remarks: Causes sensitisation.

**Components:**

**111-40-0 Diethylenetriamine:**

Test Type: Maximisation Test (GPMT)

Exposure routes: Dermal

Species: Guinea pig

Method: OECD Test Guideline 406

Result: May cause sensitisation by skin contact.

GLP: yes

**140-31-8 Aliphatic amine:**

Test Type: Maximisation Test (GPMT)

Exposure routes: Dermal

Species: Guinea pig

Method: OECD Test Guideline 406

Result: May cause sensitisation by skin contact.

**Carcinogenicity**

**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**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.

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

**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**

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: No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****111-40-0 Diethylenetriamine:**

Toxicity to fish : LC50 (Poecilia reticulata (guppy)): 430 mg/l  
 Exposure time: 96 h  
 Test Type: semi-static test  
 GLP: yes

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 1,164 mg/l  
 Exposure time: 72 h  
 Test Type: static test  
 Method: OECD Test Guideline 201  
 GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 5.6 mg/l  
 Exposure time: 21 d  
 End point: Reproduction  
 Test Type: semi-static test  
 GLP: yes

**140-31-8 Aliphatic amine:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 2,190 mg/l  
 Exposure time: 96 h  
 Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 58 mg/l  
 Exposure time: 48 h  
 Method: OECD Test Guideline 202  
 GLP: yes

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): > 1,000 mg/l  
 Exposure time: 72 h

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

 Method: OECD Test Guideline 201  
 GLP: yes

**Persistence and degradability**
**Components:**
**111-40-0 Diethylenetriamine:**

 Biodegradability : aerobic  
 Result: Readily biodegradable  
 Method: OECD Test Guideline 301D  
 GLP: yes

**140-31-8 Aliphatic amine:**

 Biodegradability : Result: Not readily biodegradable.  
 Method: OECD Test Guideline 301F  
 GLP: yes

**Bioaccumulative potential**
**Components:**
**140-31-8 Aliphatic amine:**

 Partition coefficient: n-  
 octanol/water : log Pow: -1.48 (20 °C)

**Mobility in soil**
**Components:**
**140-31-8 Aliphatic amine:**

 Distribution among  
 environmental compartments : Medium: Soil  
 Koc: 37000

**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**

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

EPA Hazardous Waste Code(s)	: D002: Corrosive
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.

**SECTION 14. TRANSPORT INFORMATION****International Regulation****IATA-DGR**

UN/ID No.	: UN 2079
Proper shipping name	: Diethylenetriamine
Class	: 8
Packing group	: II
Labels	: Corrosive
Packing instruction (cargo aircraft)	: 855
Packing instruction (passenger aircraft)	: 851

**IMDG-Code**

UN number	: UN 2079
Proper shipping name	: DIETHYLENETRIAMINE
Class	: 8
Packing group	: II
Labels	: 8
EmS Code	: F-A, S-B
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 2079
Proper shipping name	: Diethylenetriamine
Class	: 8
Packing group	: II
Labels	: Corrosive
Marine pollutant	: no

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

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

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a SARA 302 RQ.

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

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

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

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).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

**US State Regulations**
**Massachusetts Right To Know**

Diethylenetriamine 111-40-0

**Pennsylvania Right To Know**

Diethylenetriamine 111-40-0

**New Jersey Right To Know**

Diethylenetriamine 111-40-0

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

**California Prop 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other

**ELAN-Tron® C 301 Hardener**

Version 3

Revision Date 05/26/2015

Print Date 05/26/2015

reproductive harm.

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

: 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

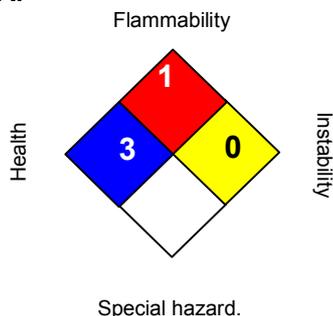
Section 5 : Not applicable

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

**SECTION 16. OTHER INFORMATION**

**Further information**

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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

Revision Date : 05/26/2015

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.