

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product Identifier: Castaldo® LiquaCast Long Life™ RTV Part A**

**1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:** Component for Polyurethane Mold Rubber. For Industrial/Professional use only. Do not use in toys or childcare articles that can be placed in the mouth.

**1.3 Details of the Supplier of the Safety Data Sheet**

Manufacturer: Company name: F.E. Knight Inc.  
120 Constitution Blvd.,  
Franklin, MA 02038. US  
Phone: (+1) 508-520-1666 (9 a.m. to 5 p.m. EST)

**1.4 Emergency Telephone Number:** Chem-Tel: 1-800-255-3924 or 617-969-5399

**Section 2: Hazards Identification****2.1 Classification of the Substance or Mixture:**

**CLP/GHS (No 1272/2008):** Acute Toxicity - Inhalation Category 4 (H332)  
Skin Irritation Category 2 (H315)  
Eye Irritation Category 2 (H319)  
Respiratory Sensitization Category 1 (H334)  
Skin Sensitization Category 1 (H317)  
Carcinogenicity Category 2 (H351)  
Specific Target Organ Toxicity - Single Exposure Category 3 (respiratory irritation) (H335)  
**EU (1999/45/EC):** Carcinogen Category 3, Toxic (T) R23, R36/37/38, R40, R42/43

**2.2 Label Elements: Danger!**

Contains Toluene Diisocyanate and TDI Prepolymer

**Hazard Phrases**

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary Phrases**

P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing vapours or mists.  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves, protective clothing, eye protection, and face protection.  
P285 In case of inadequate ventilation, wear respiratory protection.  
P362 Take off contaminated clothing and wash before reuse.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304+P340 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
P308+P313 IF exposed or concerned: Get medical attention.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents and container to licensed, permitted incinerator, or other thermal destruction device in accordance with local and national regulations.

# SAFETY DATA SHEET

**Supplemental Information:** Individuals sensitized to isocyanates should discontinue use. Long-term overexposure to isocyanates may cause lung damage. This is one part of a two-part system. Read and understand the hazard information on part B before using.

**2.3 Other Hazards:** No information available.

## Section 3: Composition/Information on Ingredients

### 3.2 Mixtures

Chemical Name	CAS #	EINECS #	EU Classification (67/548/EEC)	CLP Annex VI Classification	%
Toluene Diisocyanate	26471-62-5	247-722-4	Carcinogen Category 3, Very Toxic (T+), R26, R36/37/38, R40, R42/43, R52/53	Acute Tox Cat 1 (H330) Skin Irrit Cat 2 (H315) Eye Irrit Cat 2 (H319) Resp Sens Cat 1 (H334) Skin Sens Cat 1 (H317) Carc Cat 2 (H351) STOT SE Cat 3 (H335) Aquatic Tox Cat 3 (H412)	≤2%
Polyether polyol-TDI prepolymer	9057-91-4	Not listed	Xn R36/37/38, R42/43	Skin Irrit Cat 2 (H315) Eye Irrit Cat 2 (H319) Resp Sens Cat 1 (H334) Skin Sens Cat 1 (H317) STOT SE Cat 3 (H335)	85-90%

See Section 16 for further information on EU and GHS Classification.

## Section 4: First-Aid Measures

### 4.1 Description of First Aid Measures:

**Eye:** Rinse thoroughly with water for at least 15 minutes, holding the eyelids open to be sure the material is washed out. Get prompt medical attention.

**Skin:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before re-use. Discard items that cannot be decontaminated.

**Inhalation:** Remove person to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

**4.2 Most important symptoms and effects, both acute and delayed:** Harmful if inhaled. Causes skin and eye irritation. Vapours or mists may cause respiratory irritation. May cause allergic skin and/or respiratory reaction in sensitized persons. Symptoms include skin rash, wheezing, shortness of breath and other asthma symptoms.

**4.3 Indication of any immediate medical attention and special treatment needed:** Immediate medical attention is required for asthmatic symptoms or serious inhalation exposures. Respiratory symptoms, including pulmonary edema may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Persons sensitized to Diisocyanates should consult a physician before working with respiratory irritants or sensitizers.

## Section 5: Fire-Fighting Measures

**5.1 Extinguishing Media:** Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

### 5.2 Special Hazards Arising from the Substance or Mixture

**Unusual Fire and Explosion Hazards:** Not classified as flammable or combustible. Product will burn under fire conditions.

**Combustion Products:** Oxides of carbon and nitrogen, isocyanates, hydrogen cyanide, dense smoke.

**5.3 Advice for Fire-Fighters:** Wear an approved, positive pressure, self-contained breathing apparatus and full-body protective clothing. Cool fire-exposed containers with water.

## Section 6: Accidental Release Measures

**6.1 Personal Precautions, Protective Equipment and Emergency Procedures:** Remove all ignition sources. Clear non-emergency personnel from the area. Ventilate area. Wear appropriate protective clothing to prevent eye and skin contact and respiratory protection.

**6.2 Environmental Precautions:** Avoid release to the environment. Report spills and releases as required to appropriate authorities.

**6.3 Methods and Material for Containment and Cleaning Up:** Cover with an inert absorbent material and collect into an appropriate container for disposal. Do not seal the container since CO<sub>2</sub> is generated on contact with moisture and dangerous

# SAFETY DATA SHEET

pressure buildup can occur. Decontaminate floor area with a mixture of water plus isopropyl alcohol (20%), household ammonia (10%), and detergent (2%).

**6.4 Reference to Other Sections:** Refer to Section 8 for protective clothing and Section 13 for disposal.

## Section 7: Handling and Storage

**7.1 Precautions for Safe Handling:** Avoid breathing vapours or mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use.

**7.2 Conditions for Safe Storage, Including any Incompatibilities:** Store indoors at temperatures between 12°C and 35°C (55°F and 95°F). Store in original, unopened containers. Protect from atmospheric moisture and water since TDI reacts with water to form CO<sub>2</sub> leading to potentially dangerous pressure buildup in sealed containers.

**7.3 Specific end use(s):** None identified

## Section 8: Exposure Controls/Personal Protection

### 8.1 Control Parameters:

#### Occupational Exposure Limits:

Chemical Name	Exposure Limits
Toluene Diisocyanate (TDI)	0.08 mg/m <sup>3</sup> TWA, 0.16 mg/m <sup>3</sup> STEL France OEL 0.037 mg/m <sup>3</sup> TWA, 0.14 mg/m <sup>3</sup> STEL Belgium OEL
Polyether polyol-TDI prepolymer	None Established

**Biological Exposure Index:** None Established

**Derived No Effect Level (DNEL):** None Established

**Predicted No Effect Concentration (PNEC):** None Established

### 8.2 Exposure Controls:

**Ventilation:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

**Respiratory Protection:** If needed, an approved respirator with organic vapour cartridges may be used. For higher exposures or in an emergency, use a supplied-air respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practices.

**Skin Protection:** Wear impervious gloves, such as butyl rubber or nitrile rubber.

**Eye Protection:** Wear chemical safety goggles.

**Other Protective Equipment:** Wear impervious clothing to prevent skin contact and contamination of personal clothing. An eye wash and washing facility should be available in the work area.

## Section 9: Physical and Chemical Properties

### 9.1 Information on basic Physical and Chemical Properties

**Appearance:** Clear pale yellow to amber liquid

**Odour:** Pungent, slightly sweet

**Odour Threshold:** Not determined

**pH:** Not applicable

**Melting Point/Freezing Point:** No data available

**Boiling Point:** No data available

**Flash Point:** >177°C (350°F) (estimated)

**Evaporation Rate:** No data available

**Flammability (solid, gas):** Not applicable

**Flammable Limits:** No data available

**Vapour Pressure:** <0.009 hPa (<0.01 mmHg) @ 20°C

**Vapour Density:** Not determined

**Relative Density:** 1.05 @ 25°C

**Solubility:** Insoluble in water

**Partition Coefficient: n-Octanol/Water:** Reacts with water

**Autoignition Temperature:** No data available

**Decomposition Temperature:** No data available

**Viscosity:** 5,000-10,000 cP

**Explosive Properties:** Not explosive

**Oxidizing Properties:** Not oxidizing

### 9.2 Other Information: None available

## Section 10: Stability and Reactivity

**10.1 Reactivity:** Diisocyanates react with many materials and the rate of reaction increases with temperature. Reaction with water generates carbon dioxide and heat.

**10.2 Chemical Stability:** Stable under recommended conditions.

**10.3 Possibility of Hazardous Reactions:** Elevated temperatures can cause hazardous polymerization. Polymerization can be catalyzed by strong bases or water. Reaction with water generates carbon dioxide, and results in heat and pressure buildup in closed systems.

# SAFETY DATA SHEET

- 10.4 Conditions to Avoid:** Avoid moisture and temperatures below 12°C and above 35°C (55-95°F) to protect product integrity.
- 10.5 Incompatible Materials:** Avoid contact with water, acids, bases, alcohols, strong oxidizers, and some metals (e.g., aluminum, zinc, brass, tin, copper).
- 10.6 Hazardous Decomposition Products:** Depends on temperature, air supply and presence of other materials (potentially isocyanate vapor, carbon monoxide, nitrogen oxides, and traces of hydrogen cyanide). Gases are released during decomposition.

## Section 11: Toxicological Information

### 11.1 Information on Toxicological Effects:

#### Potential Health Effects:

**Eye Contact:** May cause moderate irritation. May cause temporary corneal injury.

**Skin Contact:** May cause irritation. Repeated skin contact may cause an allergic skin reaction. Animal studies indicate that skin contact with isocyanates may elicit respiratory sensitization.

**Inhalation:** At room temperature, vapours are minimal due to low volatility. Vapours or aerosols (e.g., generated during heating or spraying) may cause respiratory irritation and possibly pulmonary edema. Vapours are harmful if inhaled. May cause respiratory sensitization. For individuals sensitized to TDI, exposure may result in allergic respiratory reactions (e.g., coughing, wheezing, difficulty breathing).

**Ingestion:** Single oral dose toxicity is low. Ingestion may cause harmful gastrointestinal effects.

**Chronic Health Effects:** Repeated or prolonged exposure to isocyanates above exposure limits may cause an allergic sensitization of the respiratory tract causing an asthma-like response upon re-exposure. Repeated overexposure to isocyanates has been associated with decreased lung function. Repeated or prolonged dermal contact with this product may cause allergic skin sensitization in some individuals.

**Acute Toxicity Values:** TDI: Oral rat LD50 >2,000 mg/kg; Skin rabbit LD50 >9,400 mg/kg; Inhalation rat LC50 0.48 mg/L/1 hr (aerosol) (equivalent 0.24 mg/L/4 hr)

ATE<sub>mix</sub> LC50 12.0 mg/L/4 hr

**Skin Corrosion/Irritation:** Irritating to the skin.

**Eye Damage/Irritation:** Irritating to the eyes.

**Respiratory Irritation:** Vapours and mists are irritating to respiratory system.

**Respiratory Sensitization:** Isocyanates are respiratory sensitizers.

**Skin Sensitization:** Isocyanates are skin sensitizers.

**Germ Cell Mutagenicity:** Genetic toxicity data from in vitro studies were negative. Animal mutagenicity studies were negative.

**Carcinogenicity:** In a combined chronic toxicity and carcinogenicity study rats were exposed for 6 hours/day, 5 days/week for approximately 2 years to TDI (80/20) vapour concentrations of 0, 0.05, or 0.15 ppm. Histopathology of the organs/tissues investigated showed that the type and incidence of tumours and the number of tumour-bearing rats were similar in both control and TDI treated groups. Therefore, TDI was not carcinogenic in rats after long-term inhalation to vapour concentrations of up to 0.05 ppm. In-vivo tests of oral administration have suggested carcinogenic effect by ingestion.

**Reproductive Toxicity:** In laboratory animals, TDI/polymeric TDI did not cause birth defects or reproductive toxicity at levels below 0.1 ppm.

**Specific Target Organ Toxicity:** Single Exposure: Some ingredients are classified as STOT SE Category 3 for respiratory irritation. No additional data is available. Repeat Exposure: Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to TDI/polymeric TDI aerosols.

## Section 12: Ecological Information

- 12.1 Toxicity:** For Diisocyanates: The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species. Material is harmful to aquatic organisms (LC50/EC50/IC50/LL50/EL50 10-100 mg/L in most sensitive species).
- 12.2 Persistence and Degradability:** Diisocyanates are not readily biodegradable.
- 12.3 Bioaccumulative Potential:** Diisocyanates are not expected to bioaccumulate.
- 12.4 Mobility in Soil:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.
- 12.5 Results of PBT and vPvB Assessment:** TDI polymer and TDI are not considered to be PBT.
- 12.6 Other Adverse Effects:** Not applicable

# SAFETY DATA SHEET

## Section 13: Disposal Considerations

**13.1 Waste Treatment Methods:** Dispose in accordance with all local, state and federal regulations. Upon exposure to moisture, product forms an inert, non-hazardous solid.

## Section 14: Transport Information

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Transport Hazard Class(es)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	None	Not Regulated	None	None	No
Canadian TDG	None	Not Regulated	None	None	No
EU ADR/RID	None	Not Regulated	None	None	No
IMDG	None	Not Regulated	None	None	No
IATA/ICAO	None	Not Regulated	None	None	No

**14.6 Special Precautions for User:** Not applicable

**14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable

## Section 15: Regulatory Information

**15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:**

**REACH:** Substances in this formulation imported to EU in >1 tonne/yr are pre-registered. This product contains a plasticizer that is restricted from being used in toys and childcare articles that can be placed in the mouth (2005/84/EC).

**International Inventories:** To be determined

**15.2 Chemical Safety Assessment:** A Chemical Safety Assessment has not been conducted.

## Section 16: Other Information

**GHS Classification for Reference (See Sections 2 and 3):**

Acute Tox Cat 1 = Acute Inhalation Toxicity Category 1

Skin Irrit Cat 2 = Skin Irritation Category 2

Eye Irrit Cat 2 = Eye Irritation Category 2

Resp Sens Cat 1 = Respiratory Sensitization Category 1

Skin Sens Cat 1 = Skin Sensitization Category 1

Carc Cat 2 = Carcinogenicity Category 2

STOT SE Cat 3 = Specific Target Organ Toxicity - Single Exposure Category 3 (respiratory irritation)

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H330 Toxic if inhaled.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H412 Harmful to aquatic life with long lasting effects.

**EU Classes and Risk Phrases for Reference (See Sections 2 and 3):**

T+ Very toxic

T Toxic

Xn Harmful

R23 Harmful if inhaled.

R26 Very toxic by inhalation.

R36/37/38 Irritating to eyes, respiratory system and skin.

R40 Limited evidence of a carcinogenic effect.

R42/43 May cause sensitization by inhalation and skin contact.

R52/53 Harmful to aquatic organisms may cause long-term adverse effects in the aquatic environment.

**Training Advice:** All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

**SDS Revision Note:** Converted to REACH format.

**Disclaimer:** The information contained herein is considered accurate; however, F. E. Knight/ Castaldo makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**

- 1.1 Product Identifier(s):** Castaldo® LiquaCast Long Life™ RTV Part B
- 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:** Component for Polyurethane Mold Rubber. For Industrial/Professional use only. Do not use in toys or childcare articles which can be placed in the mouth.
- 1.3 Details of the Supplier of the Safety Data Sheet**  
 Manufacturer: F.E Knight Inc.  
 120 Constitution Blvd.  
 Franklin, MA 02038. US  
 Phone: (+1) 508-520-1666 (9 a.m. to 5 p.m. EST)
- 1.4 Emergency Telephone Number:** Chem-Tel: 1-800-255-3924 or 617-969-5399

**Section 2: Hazards Identification**

- 2.1 Classification of the Substance or Mixture:**  
**CLP/GHS (No 1272/2008):** Specific Target Organ Toxicity - Repeated Exposure Category 2  
 Aquatic Chronic Toxicity Category 3 (H412)

EU (1999/45/EC): R52/53

- 2.2 Label Elements:** Warning!



Contains Diethyltoluenediamine

**Hazard Phrases**

- H373 May cause damage to pancreas through prolonged or repeated exposure.
- H412 Harmful to aquatic life with long-lasting effects.

**Precautionary Phrases**

- P260 Do not breathe vapors.
- P273 Avoid release to the environment.
- P314 Get medical advice if you feel unwell.
- P501 Dispose of contents and container to licensed, permitted incinerator, or other thermal destruction device in accordance with local and national regulations.

**Supplemental Information:** May cause mild eye and skin irritation. Avoid contact with eyes, skin and clothing. This is one part of a two-part system. Read and understand the hazard information on Part A before using.

- 2.3 Other Hazards:** None

**Section 3: Composition/Information on Ingredients**

**3.2 Mixtures**

Chemical Name	CAS #	EINECS #	EU Classification (67/548/EEC)	CLP Annex VI Classification	%
Diethyltoluenediamine	68479-98-1	270-877-4	Xn, N R21/22, R36, R48/22, R50/53	Acute Toxicity Category 4 (H302, H312), Eye Irritation 2 (H319), STOT-RE 2 (H373), Aquatic Acute Category 1 (H400), Aquatic Chronic Category 1 (H410)	<5%

# SAFETY DATA SHEET

---

## Section 4: First-Aid Measures

### 4.1 Description of First Aid Measures:

**Eye:** Rinse thoroughly with water, holding the eyelids open to be sure the material is washed out. Get medical attention if irritation persists.

**Skin:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation persists.

**Inhalation:** Remove person to fresh air. Get medical attention if symptoms persist.

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

**4.2 Most Important symptoms and effects, both acute and delayed:** May cause mild skin and eye irritation. May be harmful if swallowed.

**4.3 Indication of any immediate medical attention and special treatment needed:** Immediate medical attention is not required.

## Section 5: Fire-Fighting Measures

**5.1 Extinguishing Media:** Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

### 5.2 Special Hazards Arising from the Substance or Mixture:

**Unusual Fire and Explosion Hazards:** Not classified as flammable or combustible. Product will burn under fire conditions.

**Combustion Products:** Oxides of carbon and nitrogen, organic acids, and other toxic organic compounds.

**5.3 Advice for Fire-Fighters:** Wear an approved, positive pressure, self-contained breathing apparatus and full-body protective clothing. Cool fire-exposed containers with water.

## Section 6: Accidental Release Measures

**6.1 Personal Precautions, Protective Equipment and Emergency Procedures:** Remove all ignition sources. Clear non-emergency personnel from the area. Wear appropriate protective clothing to avoid eye and skin contact and avoid breathing of vapours. Caution – spill area will be slippery.

**6.2 Environmental Precautions:** Prevent release to the environment. Report spills and releases as required to appropriate authorities.

**6.3 Methods and Material for Containment and Cleaning Up:** Cover with an inert absorbent material and collect into an appropriate container for disposal.

**6.4 Reference to Other Sections:** Refer to Section 8 for protective clothing and Section 13 for disposal.

## Section 7: Handling and Storage

**7.1 Precautions for Safe Handling:** Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use.

**7.2 Conditions for Safe Storage, Including any Incompatibilities:** Store indoors at temperatures below 49°C (120°F). Store in original containers. Avoid getting moisture into containers. Keep containers tightly closed.

**7.3 Specific end use(s):** None identified

## Section 8: Exposure Controls/Personal Protection

### 8.1 Control Parameters:

**Occupational Exposure Limits:** None Established

**Biological Exposure Index:** None Established

**Derived No Effect Level (DNEL):** None Established

**Predicted No Effect Concentration (PNEC):** None Established

### 8.2 Exposure Controls:

**Ventilation:** Use with adequate general or local exhaust ventilation to minimize exposure levels.

**Respiratory Protection:** If ventilation is inadequate, use an air-purifying respirator with organic vapour cartridges. Follow applicable regulations and good Industrial Hygiene practice.

**Skin Protection:** Impervious gloves such as butyl rubber or nitrile rubber are recommended.

**Eye Protection:** Chemical safety glasses/goggles recommended.

**Other Protective Equipment:** Impervious clothing is required to prevent skin contact and contamination of personal clothing. An eye wash facility and washing facility should be available in the work area.

# SAFETY DATA SHEET

## Section 9: Physical and Chemical Properties

### 9.1 Information on basic Physical and Chemical Properties

**Appearance:** Liquid of varied colors

**Odour:** Slightly pungent

**Odour Threshold:** No data available

**pH:** Not applicable

**Melting Point/Freezing Point:** No data available

**Boiling Point:** No data available

**Flash Point:** >177°C (350°F)

**Evaporation Rate:** No data available

**Flammability (solid, gas):** Not applicable

**Flammable Limits:** No data available

**Vapour Pressure:** <0.013 hPa @ 20°C (<0.01 mmHg @20°C)

**Vapour Density:** No data available

**Relative Density:** ~1.0 @ 25°C

**Solubility:** Slight in water

**Partition Coefficient: n-Octanol/Water:** No data

**Autoignition Temperature:** No data available

**Decomposition Temperature:** No data available

**Viscosity:** 150-1500 cP

**Explosive Properties:** Not explosive

**Oxidizing Properties:** Not oxidizing

9.2 Other Information: None available

## Section 10: Stability and Reactivity

10.1 Reactivity: Not normally reactive.

10.2 Chemical Stability: Stable under recommended conditions.

10.3 Possibility of Hazardous Reactions: None known.

10.4 Conditions to Avoid: Avoid excessive heat and exposure to sunlight.

10.5 Incompatible Materials: Avoid contact with oxidizers, acids, organic sulfur compounds, and aluminum.

10.6 Hazardous Decomposition Products: Thermal decomposition will generate oxides of carbon and nitrogen, organic acids, and other toxic organic compounds.

## Section 11: Toxicological Information

### 11.1 Information on Toxicological Effects:

#### Potential Health Effects:

**Eye Contact:** May cause mild irritation.

**Skin Contact:** May cause mild irritation.

**Inhalation:** Vapours and mists may cause mild respiratory irritation.

**Ingestion:** Single oral dose toxicity is low. No harmful effects anticipated from ingesting small amounts incidental to normal handling. Large amounts may cause gastrointestinal effects.

**Chronic Health Effects:** Mixture has not been tested. Based on laboratory animal studies; diethyltoluenediamine ingredient may cause damage to the pancreas, liver, thyroid and eyes through prolonged exposure.

**Acute Toxicity Values:** Diethyltoluenediamine: Oral rat LD50 738 mg/kg; Inhalation rat LC50 2.45 mg/L/hr; Dermal rabbit LD50 >2000 mg/kg.

**Skin Corrosion/Irritation:** Relevant components are not skin irritants.

**Eye Damage/Irritation:** Relevant components are not eye irritants.

**Respiratory Irritation:** Relevant components are not respiratory irritants.

**Respiratory Sensitization:** Components are not respiratory sensitizers.

**Skin Sensitization:** Components are not skin sensitizers.

**Germ Cell Mutagenicity:** Components are not mutagens.

**Carcinogenicity:** None of the components are carcinogens.

**Reproductive Toxicity:** Components are not reproductive toxins.

**Specific Target Organ Toxicity:** Single Exposure: No data available. Repeat Exposure: In animal studies, diethyltoluenediamine caused adverse effects in the pancreas at 8-10 mg/kg. At higher doses, effects were seen in the liver and thyroid as well.

## Section 12: Ecological Information

12.1 Toxicity: This material is classified as harmful to aquatic organisms (Category 3) based on the concentration of diethyltoluenediamine. (Diethyltoluenediamine: Fish LC50 200 mg/L/48 hr; Daphnia EC50 0.5 mg/L/48 hr.)

12.2 Persistence and Degradability: No test data; but product is not expected to be readily biodegradable.

12.3 Bioaccumulative Potential: No test data; but product is not expected to bioaccumulate.

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and vPvB Assessment: No data available.

12.6 Other Adverse Effects: No data available.



# SAFETY DATA SHEET

## Section 13: Disposal Considerations

**13.1 Waste Treatment Methods:** Dispose in accordance with all local, state and federal regulations.

## Section 14: Transport Information

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Transport Hazard Class(es)	14.4 Packing Group	14.5 Environmental Hazards
<b>US DOT</b>	None	Not Regulated	None	None	No
<b>Canadian TDG</b>	None	Not Regulated	None	None	No
<b>EU ADR/RID</b>	None	Not Regulated	None	None	No
<b>IMDG</b>	None	Not Regulated	None	None	No
<b>IATA/ICAO</b>	None	Not Regulated	None	None	No

**14.6 Special Precautions for User:** Not applicable

**14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable

## Section 15: Regulatory Information

**15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:**

**REACH:** Substances in this formulation imported to EU in >1 tonne/yr are pre-registered. This product contains a plasticizer that is restricted from being used in toys and childcare articles which can be placed in the mouth (2005/84/EC).

**International Inventories:**

**European Inventory of Existing Chemicals (EINECS):** All of the components in this product are listed on the EINECS inventory.

**15.2 Chemical Safety Assessment:** A Chemical Safety Assessment has not been conducted.

## Section 16: Other Information

**GHS Classification for Reference (See Sections 2 and 3):**

STOT-RE Specific Target Organ Toxicity – Repeated Exposure  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H319 Causes serious eye irritation.  
H373 May cause damage to pancreas through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long-lasting effects.

**EU Classes and Risk Phrases for Reference (See Sections 2 and 3):**

Xn Harmful  
N Dangerous for the Environment  
R21/22 Harmful in contact with skin or if swallowed.  
R36 Irritating to eyes.  
R48/22 Danger of serious damage to health by prolonged exposure if swallowed.  
N R50/53 Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.  
R52/53 Harmful to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

**Training Advice:** All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

**SDS Revision Note:** Converted to REACH format.

**Disclaimer:** The information contained herein is considered accurate; however, F. E. Knight Inc / Castaldo makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.