

# Material Safety Data Sheet

## Section 1. Product Identification and Use

Product Name - Trade Name **999-062 D-DUR CATALYST**  
Supplier - Manufacturer **Chemcraft International Inc.,**  
155 Rose Glen Road North  
P.O. Box 458  
Port Hope, ON.  
Canada L1A 3Z3  
Telephone (905) 885-6388 Fax (905) 885-5097  
In case of Emergency (905) 885-6388, (800) 263-7951

### For Transport Emergency or After Hours

CANUTEC (613) 996-6666

Code 999-062  
Synonym D-DUR CATALYST  
Chemical Name Not applicable.  
Chemical Family Synthetic polymer in organic solvent. (Paint.)  
Chemical Formula Not applicable.  
Material Uses Coatings: Surface coatings and finishes.  
Product Identification Number (PIN) 1263 PAINT

## Section 2. Hazardous Ingredients

### Exposure Limits

Name	CAS #	% by Weight	LC <sub>50</sub> /LD <sub>50</sub>	TLV/PEL
n-Butyl acetate	123-86-4	30-60	ORAL (LD50): Acute: 14130 mg/kg [Rat]. 7100 mg/kg [Mouse]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit]. 8770 mg/kg [Guinea pig].	<b>OSHA (Canada).</b> TWA: 150 ppm STEL: 200 ppm <b>ACGIH (Canada, 2000).</b> TWA: 150 ppm STEL: 200 ppm
Polymeric isocyanate		10-30	Not available.	Not available.
Hexamethylene diisocyanate	822-06-0	0.1-1	ORAL (LD50): Acute: 350 mg/kg [Mouse]. 768 mg/kg [Rat]. DERMAL (LD50): Acute: 617 mg/kg [Rabbit].	<b>ACGIH (Canada).</b> TWA: 0.005 ppm
Hexamethylene diisocyanate homopolymer	28182-81-2	30-60	ORAL (LD50): Acute: >10000 mg/kg [Rat]. DERMAL (LD50): Acute: >5000 mg/kg [Rabbit].	Not available.
Ethylbenzene	100-41-4	1-5	ORAL (LD50): Acute: 3500 mg/kg [Rat]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].	<b>ACGIH (Canada).</b> TWA: 100 ppm STEL: 125 ppm
Xylenes	1330-20-7	1-5	ORAL (LD50): Acute: 4300 mg/kg [Rat].	<b>ACGIH (Canada, 1992).</b> TWA: 100 ppm STEL: 150 ppm TWA: 434 mg/m <sup>3</sup> STEL: 651 mg/m <sup>3</sup>

Trace impurities and additional material names not listed above may appear in other sections of this MSDS. These materials may be listed for toxicological concerns, local compliance, or other reasons.

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### Section 3. Physical Data

Physical State and Appearance	Liquid.
Color	Not available.
Odor	Not available.
Taste	Not available.
Molecular Weight	Not applicable.
pH (1% soln/water)	Not applicable.
Boiling Point	The lowest known value is 126.5°C (259.7°F) (Acetic Acid, Butyl Ester). Weighted average: 164.4°C (327.9°F)
Melting Point	May start to solidify at -77.9°C (-108.2°F) based on data for: Acetic Acid, Butyl Ester. Weighted average: -78.34°C (-109°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 0.98 (Water = 1)
Vapor Pressure	The highest known value is 0.9 kPa (7.1 mmHg) (at 20°C) (Benzene, ethyl-). Weighted average: 0.12 kPa (0.9 mmHg) (at 20°C)
Vapor Density	The highest known value is 4 (Air = 1) (Acetic Acid, Butyl Ester). Weighted average: 3.97 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.04 ppm (Acetic Acid, Butyl Ester) Weighted average: 0.11 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Is not dispersed in cold water, hot water. See solubility in methanol, diethyl ether, n-octanol, acetone.
Solubility	Easily soluble in methanol, diethyl ether, acetone. Soluble in n-octanol. Insoluble in cold water, hot water.

### Section 4. Fire and Explosion Hazard

The Product is:	Flammable.
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames, sparks and static discharge, of heat.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Special Remarks on Fire Hazards	Vapor may travel considerable distance to source of ignition and flash back. (Acetic Acid, Butyl Ester)
Flash Points	The lowest known value is Closed cup: 15°C (59°F). Open cup: 27°C (80.6°F). (Cleveland). (Benzene, ethyl-)
Flammable Limits	The greatest known range is LOWER: 1.1% UPPER: 7% (Benzene, dimethyl-)
Auto-Ignition Temperature	The lowest known value is 407°C (764.6°F) (Acetic Acid, Butyl Ester).
Products of Combustion	These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...).
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Highly explosive in presence of open flames, sparks and static discharge.
Special Remarks on Explosion Hazards	Not available.

### Section 5. Reactivity Data

Stability	The product is stable.
Decomposition products	Not available.
Conditions of Instability	High heat and moisture. (Benzenesulfonyl isocyanate, 4-methyl-)
Incompatibility with various substances	Reactive with oxidizing agents, reducing agents, acids, alkalis, moisture. Slightly reactive to reactive with organic materials, metals.
Corrosivity	Not available.

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<b>Special Remarks on Reactivity</b>	Extremely reactive; reacts readily with water, alkalis, amines, alcohols and most acids. (Benzenesulfonyl isocyanate, 4-methyl-)
<b>Special Remarks on Corrosivity</b>	Not available.

## Section 6. Toxicological Properties

<b>Routes of Entry</b>	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Toxicity to Animals</b>	Acute oral toxicity (LD50): 3500 mg/kg [Rat]. (Benzene, ethyl-). Acute dermal toxicity (LD50): 5000 mg/kg [Rabbit]. (Acetic Acid, Butyl Ester). Acute toxicity of the gas (LC50): 18500 mg/m <sup>3</sup> 1 hour(s) [Rat]. (Hexane, 1,6-diisocyanato-, homopolymer). Acute toxicity of the vapor (LC50): 6700 ppm 4 hour(s) [Rat]. (Benzene, dimethyl-).
<b>Effects of Acute Exposure</b>	Very hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Hazardous in case of ingestion. Slightly hazardous in case of skin contact (permeator). Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
<b>Chronic Effects on Humans</b>	<b>CARCINOGENIC EFFECTS:</b> Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC [Hexane, 1,6-diisocyanato-]. Classified None. by OSHA [Hexane, 1,6-diisocyanato-]. <b>MUTAGENIC EFFECTS:</b> Not available. <b>TERATOGENIC EFFECTS:</b> Not available. <b>DEVELOPMENTAL TOXICITY:</b> Not available. The substance is toxic to blood, lungs, the nervous system. Repeated or prolonged exposure to the substance can produce target organs damage.
<b>Special Remarks on Toxicity to Animals</b>	Not available.
<b>Special Remarks on Chronic Effects on Humans</b>	Medical supervision of all employees who handle or come in contact with isocyanates is recommended. These should include preemployment and periodic medical examinations with pulmonary function test (FEV, FVC as a minimum). Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with isocyanates. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be permitted. (Polymeric Isocyanate)
<b>Special Remarks on Other Toxic Effects on Humans</b>	Material is irritating to mucous membranes and upper respiratory tract. (Acetic Acid, Butyl Ester)
<b>Exposure Limits</b>	Not available.

## Section 7. Preventive Measures

<b>Personal Protection</b>	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Chemical resistant gloves, such as Norfoil should be used when handling this product. Please consult a Glove Manufacturer for alternate choices.
<b>Personal Protection in Case of a Large Spill</b>	Splash goggles. Full suit. Vapor respirator. Boots. Chemical resistant gloves, such as Norfoil should be used when handling this product. Please consult a Glove Manufacturer for alternate choices. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
<b>Engineering Controls</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
<b>Small Spill</b>	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
<b>Large Spill</b>	Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.
<b>Waste Disposal</b>	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
<b>Precautions</b>	Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, acids, alkalis, moisture.
<b>Storage</b>	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
<b>TDG Classification</b>	3
<b>PIN</b>	1263 PAINT
<b>PG:</b>	III

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**Special Provisions for Transport****Federal and State Regulations**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, 1,3-diisocyanatomethyl-; Benzene, methyl-  
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Benzene, methyl-  
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Benzene, 1,3-diisocyanatomethyl-  
 Illinois toxic substances disclosure to employee act: Benzene, ethyl-  
 New York release reporting list: Acetic Acid, Butyl Ester  
 New York acutely hazardous substances: Benzene, ethyl-  
 Rhode Island RTK hazardous substances: Benzene, ethyl-  
 Pennsylvania RTK: Acetic Acid, Butyl Ester; Benzene, ethyl-; Benzene, methyl-; Benzene, dimethyl-  
 Florida: Acetic Acid, Butyl Ester; Benzene, ethyl-  
 Minnesota: Acetic Acid, Butyl Ester; Benzene, ethyl-  
 Massachusetts RTK: Acetic Acid, Butyl Ester; Benzene, ethyl-  
 New Jersey: Acetic Acid, Butyl Ester; Hexane, 1,6-diisocyanato-; Benzene, ethyl-; Benzene, methyl-  
 TSCA 8(b) inventory: Acetic Acid, Butyl Ester; Benzene, ethyl-; Benzene, methyl-; Benzene, dimethyl-  
 TSCA 5(e) substance consent order: Acetic Acid, Butyl Ester  
 TSCA 8(d) H and S data reporting: Benzene, ethyl-  
 TSCA 12(b) annual export notification: Acetic Acid, Butyl Ester  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetic Acid, Butyl Ester; Benzene, ethyl-: Fire Hazard, Immediate (Acute) Health Hazard; Benzene, methyl-: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Benzene, dimethyl-: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard  
 SARA 313 toxic chemical notification and release reporting: Benzene, ethyl- 1.30975%; Benzene, dimethyl- 4.17219%  
 CERCLA: Hazardous substances.: Acetic Acid, Butyl Ester; Benzene, ethyl-: 1000 lbs. (453.6 kg); Benzene, methyl-: 1000 lbs. (453.6 kg); Benzene, dimethyl-: 100 lbs. (45.36 kg);

**Other Regulations**

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**Other Classifications**

**WHMIS (Canada)**  
**Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).**  
**Class D-2A: Material causing other toxic effects (VERY TOXIC).**  
**Class D-2B: Material causing other toxic effects (TOXIC).**

**HCS (U.S.A.)**  
 Class: Flammable liquid having a flash point lower than 37.8°C (100°F).  
 Class: Irritating substance.  
 Class: Target organ effects.

<b>Hazardous Material Information System (U.S.A.)</b>	<b>Health Hazard</b>	* 2
	<b>Fire Hazard</b>	3
	<b>Reactivity</b>	2
	<b>Personal Protection</b>	H
<b>National Fire Protection Association (U.S.A.)</b>	<b>Health</b>	2
	<b>Fire Hazard</b>	3
	<b>Reactivity</b>	2
	<b>Specific Hazard</b>	

**Section 8. First Aid Measures**

<b>Eye Contact</b>	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
<b>Hazardous Skin Contact</b>	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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<b>Hazardous Inhalation</b>	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. <b>WARNING:</b> It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.
<b>Ingestion</b>	Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
<b>Hazardous Ingestion</b>	Not available.

## Section 9. Preparation Information

<b>References</b>	-Manufacturers Material Safety Data Sheets.
<b>Other Special Considerations</b>	<ul style="list-style-type: none"><li>- Please note that this material contains isocyanates as a component of the formulation. Isocyanates have been prescribed as a designated substance (R.R.O. 1990, Reg. 182, s. 2) by the Government of Ontario under the Occupational Health and Safety Act (the Act). This Occupational Health and Safety Division of the Ministry of Labour is responsible for administering the Act. The Act places duties on employers to take all precautions reasonable in the circumstances to protect the health of workers. Employers are also required to comply with regulations and to provide information, instruction and supervision to workers.</li><li>- A "designated substance" is defined by the Act to mean a biological, chemical or physical agent or combination thereof prescribed as a designated substance to which the exposure of a worker is prohibited, regulated, restricted, limited or controlled. As such, there are regulations associated with the production, use handling and storage of isocyanates such as exposure limits, assessment and control programs and medical surveillance. Information regarding the type of isocyanate supplied by Chemcraft Inc. and used at your facility may be obtained from the individual MSDS's of the materials purchased.</li><li>- There are several informative books and guides to the Act and the Regulation respecting Isocyanates published by the Ontario Government such as:<ul style="list-style-type: none"><li>· Occupational Health and Safety Act</li><li>· Occupational Health and Safety Act and Regulations for Industrial Establishments</li><li>· Regulations respecting Isocyanates - made under the Occupational Health and Safety Act</li><li>· Designated Substances in the Workplace: A Guide to the Isocyanates Regulation</li></ul>These books may be obtained through your local office of the Ministry of Labour.</li><li>- Please be aware that the regulations may require you to control exposure limits by the use of personal protective equipment. In this case, the regulations clearly state that the use of charcoal filter respirators are not an effective control for isocyanates. When respiratory protection is required fresh air respirators or self-contained breathing apparatus, as specified in the Respirator Code, must be used.</li><li>- If you have further questions regarding these products or the regulations, or require more detailed information, you may contact us or your local branch of the Ministry of Labour.</li></ul>
<b>Related Information</b>	This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.
<b>Preparation Information</b>	<b>Validated by Alfreda Kowalski on 1/25/2005.</b> <b>Verified by Alfreda Kowalski.</b> <b>Printed 2/1/2005.</b>
<b>Information Contact</b>	Prepared by the Health, Safety and Environment Department, Chemcraft International Inc., P.O. Box 458, 155, Rose Glen Road North, Port Hope, ON. Canada. Phone: 905 885-6388 Fax: 905 885-5097

### Notice to Reader

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