MaterialSafety DataSheet

Section 1. Product Identification and Use

Product Name - Trade Name **999-066 ISOLANTE HARDENER**

Supplier - Manufacturer

Chemcraft® International Inc.
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Code	999-066
Synonym	ISOLANTE HARDENER
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_{50}/LD_{50}**	**TLV/PEL**
Ethyl Acetate	141-78-6	50 - 70	ORAL (LD50): Acute: 5620 mg/kg [Rat]. 4100 mg/kg [Mouse]. 4935 mg/kg [Rabbit].	**ACGIH TLV (United States).** TWA: 400 ppm 8 hour/hours. TWA: 400 ppm TWA: 0.5 mg/m^3 STEL: 1 mg/m^3
Hexamethylene diisocyanate homopolymer	28182-81-2	15 - 30	ORAL (LD50): Acute: >10000 mg/kg [Rat]. DERMAL (LD50): Acute: >5000 mg/kg [Rabbit].	
n-Butyl acetate	123-86-4	1 - 5	ORAL (LD50): Acute: 14130 mg/kg [Rat]. 7100 mg/kg [Mouse]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit]. 8770 mg/kg [Guinea pig].	**OSHA (United States).** TWA: 150 ppm STEL: 200 ppm **ACGIH (United States, 2000).** TWA: 150 ppm STEL: 200 ppm **NIOSH** TWA: 150 ppm STEL: 200 ppm
Xylenes	1330-20-7	1 - 5	ORAL (LD50): Acute: 4300 mg/kg [Rat].	**ACGIH (United States, 1992).** TWA: 100 ppm STEL: 150 ppm TWA: 434 mg/m^3 STEL: 651 mg/m^3
Monochlorobenzene	108-90-7	1 - 5	ORAL (LD50): Acute: 2910 mg/kg [Rat].	TWA: 75 ppm TWA: 350 mg/m^3
Ethylbenzene	100-41-4	0.1 - 1	ORAL (LD50): Acute: 3500 mg/kg [Rat]. DERMAL (LD50): Acute: 5000 mg/kg	**ACGIH (United States).** TWA: 100 ppm STEL: 125 ppm

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			[Rabbit].	**NIOSH** STEL: 125 ppm
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].	**ACGIH (United States).** TWA: 0.005 ppm

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.

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 77°C (170.6°F) (Acetic Acid, Ethyl Ester). Weighted average: 123.02°C (253.4°F)
Melting Point	May start to solidify at -45.6°C (-50.1°F) based on data for: Benzene, chloro-. Weighted average: -82.57°C (-116.6°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 0.96 (Water = 1)
Vapor Pressure	The highest known value is 9.7 kPa (73 mm Hg) (at 20°C) (Acetic Acid, Ethyl Ester). Weighted average: 6.54 kPa (49.05 mm Hg) (at 20°C)
Vapor Density	The highest known value is 4 (Air = 1) (Acetic Acid, Butyl Ester). Weighted average: 3.15 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.04 ppm (Acetic Acid, Butyl Ester) Weighted average: 0.16 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Partially dispersible in methanol, diethyl ether. Not dispersible in cold water, hot water. See solubility in methanol, diethyl ether, n-octanol, acetone.
Solubility	Easily soluble in n-octanol, acetone. Soluble in methanol, diethyl ether. 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 the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Fire Fighting Media and Instructions	SMALL FIRE: Use dry chemical powder. LARGE FIRE: Use water spray or fog. Cool containers with water jet in order to prevent pressure build-up, auto-ignition 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: -1°C (30.2°F). (Tagliabue). Open cup: -0.5°C (31.1°F). (Tagliabue). (Acetic Acid, Ethyl Ester)
Flammable Limits	The greatest known range is Lower: 2.2% Upper: 11% (Acetic Acid, Ethyl Ester)
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_2), nitrogen oxides (NO, NO_2 etc.), sulfur oxides (SO_2, SO_3 etc.), halogenated compounds, phosphates, hydrogen chloride.

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Explosion Hazards in Presence of Various Substances	Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Special Remarks on Explosion Hazards	Not available.

Section 5. Reactivity Data

Stability	The product is stable.
Decomposition products	These products are halogenated compounds, hydrogen chloride.
Conditions of Instability	High heat and moisture. (Hexane, 1,6-diisocyanato-)
Incompatibility with various substances	Highly reactive or incompatible with the following materials: oxidizing materials. Reactive or incompatible with the following materials: reducing materials, organic materials, metals, acids and alkalis.
Corrosivity	Not available.
Special Remarks on Reactivity	Not available.
Special Remarks on Corrosivity	Not available.

Section 6. Toxicological Properties

Routes of Entry	Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 2910 mg/kg [Rat]. (Benzene, chloro-). Acute dermal toxicity (LD50): >20 mg/kg [Rabbit]. (Acetic Acid, Ethyl Ester). Acute toxicity of the gas (LC50): 45000 mg/m^3 2 hour/hours [Mouse]. (Acetic Acid, Ethyl Ester). Acute toxicity of the vapor (LC50): 16000 ppm 6 hour/hours [Rat]. (Acetic Acid, Ethyl Ester).
Effects of Acute Exposure	Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator). Severe over-exposure can result in death.
Chronic Effects on Humans	**CARCINOGENIC EFFECTS**: Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC [Acetic Acid, Ethyl Ester]. Classified A2 (Suspected for humans.) by ACGIH, 2A (Probable for human.) by IARC [Hexane, 1,6-diisocyanato-]. Classified None. by OSHA [Hexane, 1,6-diisocyanato-]. **MUTAGENIC EFFECTS**: Not available. **TERATOGENIC EFFECTS**: Not available. **DEVELOPMENTAL TOXICITY**: Not available. The substance is toxic to blood, kidneys, lungs, the nervous system, liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Prolonged or repeated contact with skin can cause defatting and drying of the skin resulting in skin irritaion and dermatitis. Prolonged exposure to high vapour concentration can cause headache, dizziness, nausea and central nervous system depression. High level exposure to Xylene in laboratory animals, often at levels which are toxic to the mother, have affected the development of the fetus. The revelance of this to humans is not known. (Benzene, dimethyl-)
Special Remarks on Other Toxic Effects on Humans	As a result of previous repeated overexposure or a single large dose, certain individuals develop sensitization which will cause them to react to a later exposure to product at levels well below the TLV. Symptoms including chest tightness, wheezing, cough, shortness of breath or asthma attach, could be imediate or delayed. (Hexane, 1,6-diisocyanato-, homopolymer)
Exposure Limits	Not available.

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Section 7. Preventive Measures

Personal Protection	Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Suggested protective clothing might not be adequate. Consult a specialist before handling this product.
Engineering Controls	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 close to the workstation location.
Small Spill	Absorb with an inert material and transfer the spilled material and absorbent to an appropriate waste disposal container.
Large Spill	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 allow water to enter container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas. Dike if necessary. Call for assistance on disposal.
Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Precautions	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.
Storage	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).
TDG Classification	3
PIN	1263 PAINT **PG:** II
Special Provisions for Transport	-
Federal and State Regulations	Illinois toxic substances disclosure to employee act: Benzene, ethyl- New York release reporting list: Acetic Acid, Ethyl Ester; Acetic Acid, Butyl Ester New York acutely hazardous substances: Benzene, ethyl- Rhode Island RTK hazardous substances: Acetic Acid, Ethyl Ester; Benzene, ethyl- Pennsylvania RTK: Acetic Acid, Ethyl Ester; Benzene, ethyl-; Benzene, dimethyl-; Acetic Acid, Butyl Ester Florida: Acetic Acid, Ethyl Ester; Benzene, ethyl-; Acetic Acid, Butyl Ester Minnesota: Acetic Acid, Ethyl Ester; Benzene, ethyl-; Acetic Acid, Butyl Ester Massachusetts RTK: Acetic Acid, Ethyl Ester; Benzene, ethyl-; Acetic Acid, Butyl Ester New Jersey: Acetic Acid, Ethyl Ester; Benzene, ethyl-; Hexane, 1,6-diisocyanato-; Acetic Acid, Butyl Ester TSCA 8(b) inventory: Acetic Acid, Ethyl Ester; Benzene, ethyl-; Benzene, dimethyl-; Acetic Acid, Butyl Ester TSCA 5(e) substance consent order: Acetic Acid, Ethyl Ester; Acetic Acid, Butyl Ester TSCA 8(d) H and S data reporting: Benzene, ethyl- TSCA 12(b) annual export notification: Acetic Acid, Ethyl Ester; Acetic Acid, Butyl Ester SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetic Acid, Ethyl Ester: Fire hazard, Immediate (acute) health hazard; Benzene, dimethyl-: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Acetic Acid, Butyl Ester CERCLA: Hazardous substances.: Acetic Acid, Ethyl Ester; Benzene, ethyl-: 1000 lbs. (453.6 kg); Benzene, dimethyl-: 100 lbs. (45.36 kg); Acetic Acid, Butyl Ester;
Other Regulations	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
Other Classifications	**WHMIS (Canada)** **Class B-2: Flammable liquid** **Class D-2A: Material causing other toxic effects (Very toxic).** **Class D-2B: Material causing other toxic effects (Toxic).** **HCS (U.S.A.)** Contains material which may cause cancer Highly toxic Target organ effects

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Hazardous Material Information System (U.S.A.)	**Health Hazard**	*	3
	Fire Hazard		3
	Reactivity		1
	Personal Protection		G
National Fire Protection Association (U.S.A.)	**Health**		3
	Fire Hazard		3
	Reactivity		0
	Specific Hazard		

Section 8. First Aid Measures

Eye Contact 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.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Hazardous Skin Contact Not available.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Hazardous Inhalation Move 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. Warning: 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.

Ingestion Do not induce vomiting. Examine the lips and mouth to ascertain if the tissues are damaged, a possible indication that 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.

Hazardous Ingestion Not available.

Section 9. Preparation Information

References -Manufacturers Material Safety Data Sheets.

Other Special Considerations Not available.

Related Information This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.

Preparation Information **Validated by A. Davis on 3/6/2007.**

Verified by A. Davis.

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