

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name 635-050 DANCRYL50-55*

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Code 635-050
Synonym DANCRYL 50-55*
Chemical Name Not applicable.
Chemical Family Synthetic polymer in organic solvent. (Polymer.)
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
n-Butyl acetate	123-86-4	15 - 30	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	5 - 15	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
Ethyl 3-ethoxy propionate	763-69-9	5 - 15	ORAL (LD50): Acute: 5001 mg/kg [Rat]. 4301 mg/kg [Rat]. DERMAL (LD50): Acute: 10000 mg/kg [Rabbit]. VAPOR (LC50): Acute: >1000 ppm 6 hour/hours [Rat].	
Isopropanol	67-63-0	1 - 5	ORAL (LD50): Acute: 5045 mg/kg [Rat]. 4797 mg/kg [Dog]. . 3600 mg/kg [Mouse]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit].	ACGIH (United States, 1994). TWA: 400 ppm STEL: 500 ppm TWA: 983 mg/m ³ STEL: 1230 mg/m ³
1-Butanol	71-36-3	1 - 5	ORAL (LD50): Acute: 2510 mg/kg [Rat]. 790 mg/kg [Rat].	TWA: 50 ppm CEIL: 50 ppm

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Ethylbenzene	100-41-4	1 - 5	DERMAL (LD50): Acute: 5300 mg/kg [Rabbit]. 3400 mg/kg [Rabbit]. VAPOR (LC50): Acute: 8000 mg/l 4 hour/hours [Rat].	ACGIH (United States). TWA: 100 ppm STEL: 125 ppm NIOSH STEL: 125 ppm
Isobutyl alcohol	78-83-1	1 - 5	ORAL (LD50): Acute: 2500 mg/kg [Rat.]. 3200 mg/kg [Mouse]. DERMAL (LD50): Acute: 4200 mg/kg [Rabbit.].	ACGIH (United States, 1993). TWA: 50 ppm
Ethyl alcohol	64-17-5	1 - 5	ORAL (LD50): Acute: 7060 mg/kg [Rat.]. VAPOR (LC50): Acute: 8000 mg/l 4 hour/hours [Rat.].	OSHA (United States). TWA: 1000 ppm ACGIH (United States). TWA: 1000 ppm NIOSH TWA: 1000 ppm
Potential additional emission of formaldehyde	50-00-0*	0.1 - 1	ORAL (LD50): Acute: 100 mg/kg [Rat.]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit].	OSHA (United States). STEL: 2 ppm TWA: 0.75 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)	Neutral.
Boiling Point	The lowest known value is 78.5°C (173.3°F) (Ethanol). Weighted average: 129.28°C (264.7°F)
Melting Point	May start to solidify at <-50°C (-58°F) based on data for: Propanoic acid, 3-ethoxy-, ethyl ester. Weighted average: -76.7°C (-106.1°F)
Critical Temperature	Not available.
Specific Gravity	0.9556 (Water = 1)
Vapor Pressure	The highest known value is 5.7 kPa (43 mm Hg) (at 20°C) (Ethanol). Weighted average: 1.3 kPa (9.75 mm Hg) (at 20°C)
Vapor Density	The highest known value is 5.03 (Air = 1) (Propanoic acid, 3-ethoxy-, ethyl ester). Weighted average: 3.77 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.04 ppm (Acetic Acid, Butyl Ester) Weighted average: 7.1 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Not dispersible in cold water, hot water, methanol. 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 the presence of the following materials or conditions: open flames, sparks and static discharge and heat. Slightly flammable in the presence of the following materials or conditions: oxidizing materials.
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: 12.78°C (55°F). Open cup: 12.78°C (55°F). (Cleveland). (Ethanol)
Flammable Limits	The greatest known range is Lower: 3.3% Upper: 19% (Ethanol)
Auto-Ignition Temperature	The lowest known value is 343°C (649.4°F) (1-Butanol).
Products of Combustion	These products are carbon oxides (CO, CO ₂).
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	Not available.
Conditions of Instability	Avoid contact with oxidizing agents. (Benzene, (1-methylethenyl)-)
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. Non-reactive or compatible with the following materials: combustible materials and moisture.
Corrosivity	Not available.
Special Remarks on Reactivity	Incompatible with hydrogen fluoride. (Silica gel, pptd., cryst.-free)
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): 790 mg/kg [Rat]. (1-Butanol). Acute dermal toxicity (LD50): 3400 mg/kg [Rabbit]. (1-Butanol). Acute toxicity of the vapor (LC50): >1000 ppm 6 hour/hours [Rat]. (Propanoic acid, 3-ethoxy-, ethyl ester).
Effects of Acute Exposure	Hazardous in case of skin contact (permeator), of ingestion, of inhalation.
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [1-Butanol]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Ethanol]. Classified 1 (Proven for humans.) by IARC [Potential additional emission of formaldehyde]. Classified A2 (Suspected for humans.) by ACGIH, 2 (Reasonably anticipated to be human carcinogens.) by NTP [Potential additional emission of formaldehyde]. Classified 4 (Probably not for humans.) by IARC [Silica gel, pptd., cryst.-free]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: PROVEN [Ethanol] The substance is toxic to blood, the nervous system, the reproductive system, liver. Repeated or prolonged exposure to the substance can produce target organs damage.

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Special Remarks on Toxicity to Animals	Formaldehyde has caused cancer in test animals at high concentrations (5-15 ppm). (Potential additional emission of formaldehyde)
Special Remarks on Chronic Effects on Humans	Prolonged or repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation 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 relevance of this to humans is not known. (Benzene, dimethyl-)
Special Remarks on Other Toxic Effects on Humans	Material is irritating to mucous membranes and upper respiratory tract. (Acetic Acid, Butyl Ester)
Exposure Limits	Not available.

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. 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, reducing agents, alkalis.
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	WARNING: This product contains chemical/chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.: Formaldehyde WARNING: This product contains chemical/chemicals known to the state of California to cause cancer.: Formaldehyde 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, dimethyl-; Isopropyl alcohol; Ethanol Florida: Acetic Acid, Butyl Ester; Benzene, ethyl- Minnesota: Acetic Acid, Butyl Ester; Benzene, ethyl-; Ethanol Massachusetts RTK: Acetic Acid, Butyl Ester; Benzene, ethyl-; Isopropyl alcohol; Ethanol New Jersey: Acetic Acid, Butyl Ester; Benzene, ethyl-; Isopropyl alcohol; Ethanol TSCA 8(b) inventory: Acetic Acid, Butyl Ester; Benzene, ethyl-; Benzene, dimethyl-; Isopropyl alcohol; N-Butyl Alcohol; Ethanol TSCA 5(e) substance consent order: Acetic Acid, Butyl Ester

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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, dimethyl-: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; 2-Propanol: Fire hazard, Delayed (chronic) health hazard; 1-Propanol, 2-methyl-: Fire hazard, Delayed (chronic) health hazard
 CERCLA: Hazardous substances.: Acetic Acid, Butyl Ester; Benzene, ethyl-: 1000 lbs. (453.6 kg); Benzene, dimethyl-: 100 lbs. (45.36 kg); N-Butyl Alcohol; 1-Propanol, 2-methyl-;
 OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Regulations

OSHA: Standard for Occupational Exposure to Formaldehyde 29CFR 1910.1048 must be consulted before initial use of product

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

Hazardous Material Information System (U.S.A.)

Health Hazard	* 2
Fire Hazard	3
Reactivity	0
Personal Protection	G

National Fire Protection Association (U.S.A.)

Health	2
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

Wash with soap and water. Get medical attention if irritation develops.

Hazardous Skin Contact

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

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 2/28/2007.

Verified by A. Davis.

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