

MATERIAL SAFETY DATA SHEET

Business Hours 8:00 am - 5:00 pm
Emergency Telephone Number
514/639-1616

DYNAIR PRODUCTS
2100 Remembrance Rd.
Lachine, Quebec H8S1X3

FOR TRANSPORTATION EMERGENCIES
CALL CHEMTREC 800/424-9300

SECTION I

PRODUCT NAME & SYNONYMS Duct Seal 1	CHEMICAL FAMILY Synthetic Rubber/Resin Mixture	HMS RATINGS
PRODUCT USE Solvent Based Duct Sealer	FORMULA Mixture	HEALTH 1 FLAMMABILITY 4 REACTIVITY 0

SECTION IIA - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	%	OSHA Limits (ppm)			Skin Designation	LD50 of Ingredient mg/kg	LC50 of Ingredient ppm/4H
			TLV	PEL	Ceiling			
Toluene	108-88-3	11-14	100	150	300	N/A	oral-rat:5,000	mus:7,528
Heptane	142-82-5	23-27	400	500	None	N/A	ivn-mus:222	hmn:TCLo 1000 6M
Amorphous Silica	7631-86-9	5-6	80 mg/m ³ (as dust)			N/A	N/A	N/A

SECTION IIB - ADDITIONAL INGREDIENTS (> 3%)

Hydrocarbon Resin	CAS # 68132-04-7	Calcium Carbonate	1317-65-3
Hydrated Alumina	CAS # 21645-51-2	Clay	1332-58-7

N/E=Not established N/A=Not applicable

SECTION III - PHYSICAL DATA

SPECIFIC GRAVITY 1.0 - 1.1	BOILING POINT 209°F (98.5°C)	% VOLATILES BY WT 35-40%	VAPOR DENSITY (Air = 1) 3.14-3.45 (Air=1)
VAPOR PRESSURE 36.7 mm HG @ 30°C	FREEZING POINT -131°F (-90.5°C)	SOLUBILITY IN WATER Negligible	EVAPORATION RATE 2.1-3.7 (nBuAc=1)
pH Not applicable	PHYSICAL STATE Liquid	ODOR THRESHOLD Not available	CORROSIVITY Not applicable
VOC 395 gms / liter	ODOR & APPEARANCE Thick gray paste with mild hydrocarbon odor.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY Flammable Division 2	IF YES, UNDER WHAT CONDITIONS Ignition can occur when this product is exposed to heat, sparks, or flame.		
FLASHPOINT 13.5°C Closed Cup	AUTOIGNITION TEMPERATURE 222.5°C	LOWER FLAMMABLE LIMIT (%By Volume) 1.0%	UPPER FLAMMABLE LIMIT (% By Volume) 7.5%

HAZARDOUS COMBUSTION PRODUCTS
Toxic gases such as carbon dioxide, carbon monoxide, and nitrogen oxides may be released in a fire.

EXTINGUISHING MEDIA
Dry chemical, carbon dioxide, or foam. Water may not be effective as an extinguishing agent. Water fog or spray may be used to provide a smothering effect on fires. A solid stream of water may scatter or spread the fire.

SPECIAL FIREFIGHTING PROCEDURES
This product contains solvents that are dangerous fire and explosion hazards when exposed to heat or flame. Fire fighters should wear self-contained breathing apparatus with a full face piece and full protective clothing. Water fog or spray may be used to cool fire exposed containers and the surrounding combustibles.

UNUSUAL FIRE & EXPLOSION HAZARDS
GROUND ALL CONTAINERS WHEN TRANSFERRING MATERIAL. Extremely flammable. Store & use away from all sources of heat, flame or sparks. Do not smoke while applying. Vapors are heavier than air and may travel along ground or may be moved by ventilation & ignited by pilot lights, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant from the material handling point and flash back. As with other hydrocarbon solvents, vapors may ignite when exposed to static discharge. There is no evidence to show this product is sensitive to physical shock.

SECTION V - REACTIVITY DATA

This product is chemically stable. Hazardous polymerization will not occur.	CONDITIONS TO AVOID Heat, sparks, open flames, and other ignition sources.
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INCOMPATIBILITY
Strong oxidizing agents, acids, bases.

DECOMPOSITION PRODUCTS
Toxic gases such as carbon dioxide, carbon monoxide and nitrogen oxides may be released in a fire.

SECTION VI - TOXICOLOGICAL PROPERTIES

EFFECTS OF ACUTE EXPOSURE TO PRODUCT
Primary Route of Entry: Skin Contact (Yes), Eye Contact (Yes), Ingestion (Yes), and Inhalation (Yes)
Skin, eye, nose and throat irritation on short term exposure to liquid or vapor. Overexposure may result in headache, dizziness, fatigue, nausea, and loss of consciousness. Solvent may be absorbed through the skin in toxic amounts. Ingestion causes irritation of the gastro intestinal tract.

SECTION VI - TOXICOLOGICAL PROPERTIES

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EFFECTS OF CHRONIC EXPOSURE TO PRODUCT

Chronic exposure may cause reversible kidney and liver damage

EXPOSURE LIMITS OSHA PEL-TWA Toluene 100 ppm	SENSITIZATION TO PRODUCT Eye, nose, & throat irritation @ or above PEL of 100 ppm	IRRITANCY OF PRODUCT None Known	SYNERGISTIC PRODUCTS None known
CARCINOGENICITY No Evidence	MUTAGENICITY & TUMORIGENICITY No Evidence	REPRODUCTIVE TOXICITY This product contains chemical known to the State of California to cause birth defects or other reproductive harm.	TERATOGENICITY This product contains chemical known to the State of California to cause birth defects or other reproductive harm.

SECTION VII - PREVENTIVE MEASURES

EYE PROTECTION Glasses or goggles recommended	GLOVES Gloves recommended (hycron, neoprene, or nitrile).
RESPIRATOR NIOSH approved respirator if PEL 100 ppm is exceeded.	FOOTWEAR Industrial shoes to protect feet from contact with adhesive

OTHER
Long sleeves, long trousers to protect skin from contact with cleaner
Protective skin creams or emollients useful.

ENGINEERING CONTROLS
Do not use in enclosed areas without proper explosion proof ventilation. General and local exhaust ventilation must be sufficient to control vapor concentrations and keep the PEL below 100 ppm.

LEAK OR SPILL PROCEDURE

Remove all sources of ignition. Avoid breathing vapors. Use self-contained breathing apparatus in enclosed areas. Ventilate area. Contain and remove with inert absorbents and non-sparking tools.

WASTE DISPOSAL

Dispose of in accordance with all local, state, and federal regulations.

HANDLING PROCEDURES & EQUIPMENT **KEEP OUT OF REACH OF CHILDREN** **GROUND HANDLING EQUIPMENT**

Use away from all sources of heat, flames, or sparks. Do NOT smoke while using. Handle with non sparking tools. Wash with soap and water before eating or drinking. Launder contaminated clothing before reuse.

STORAGE REQUIREMENTS Keep containers cool, dry, and store away from all sources of heat, flame, or sparks.

Keep containers tightly closed and store with adequate ventilation. Do not pressurize, cut, weld, or grind empty containers. Residual product and solvent vapors may ignite explosively.

SPECIAL SHIPPING INFORMATION

A red caution label is required for 1 gallon cans only. DOT classification: Flammable Liquid, Adhesives, 3, UN1133, PGII (Heptane)

SECTION VIII - FIRST AID MEASURES

EYE CONTACT
Immediately flush with large amounts of running water for at least 15 minutes. Get medical attention.

SKIN CONTACT
Remove contaminated clothing and immediately flush skin with running water. Wash exposed area with soap and water. Contact a physician.

INHALATION
Remove to fresh air. Provide oxygen if breathing is difficult. If necessary, give artificial respiration. If symptoms persist, seek medical attention.

INGESTION
Do not induce vomiting. Get medical attention.

SECTION IX - SARA SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of SARA 313 of the Emergency Planning & Community Right-to-Know Act of 1986 & of 40CFR 372:

CHEMICAL NAME	CAS #	%	CHEMICAL NAME	CAS #	%
Toluene	108-88-3	11.7	PA:		
California (Prop 65):			Amorphous Silica	7631-86-9	5-6
Toluene	108-88-3	11.7	Heptane	142-82-5	23-27
FL:			CANADA: WHMIS Class D		
Toluene	108-88-3	11.7	Toluene	108-88-3	11.7
Heptane	142-82-5	23-27	Heptane	142-82-5	23-27
MA, MN, NJ:			Amorphous Silica	7631-86-9	5-6
Amorphous Silica	7631-86-9	5-6			
Toluene	108-88-3	11.7			
Heptane	142-82-5	23-27			

SECTION X - PREPARATION INFORMATION

PREPARED BY Carolina Flanigan	DATE 2 November 2000	DATE - REVISION # New	SUPERSEDES ALL PREVIOUS PUBLICATIONS
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NOTICE

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