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Safety, Health & Environmental Communications

MATERIAL SAFETY DATA SHEET

Date Issued: August 26, 1997

EMERGENCY NUMBERS

Product Development:

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Safety/Environmental Information:

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Section I: Material Identification

PRODUCT NAME: 323

Trade names and synonyms: 323, MDO, Meden 35
DOT Proper Shipping Name: Not a regulated material

H.M.I.S. RATINGS

HEALTH - 1

FLAMMABILITY - 0

REACTIVITY - 0

Section II: Ingredients and Hazards

Product Description

Kraft paper impregnated with a proprietary mixture of curable low molecular weight phenol formaldehyde resins. Resins include proprietary additives required for specific product applications.

Hazards

Product contains partially cured phenol-formaldehyde resins which release formaldehyde and water during further heat cure. During curing process low molecular condensates of phenol and formaldehyde may be released. Release of these volatiles may exceed allowable concentrations in air in areas of insufficient ventilation during open (unwrapped) storage and/or during the curing process at elevated temperatures. Combined potential release under all conditions of cure below 350F of formaldehyde, phenol, and volatile phenol-formaldehyde condensates does not exceed stated "volatile" property of product. Volatiles include water.

Hazardous Ingredients

* **Total formaldehyde content:** <0.10%(wt) on as-is overlay paper^{**}; Exposure limits: ACGIH ;Exposure limits, 1 ppm 8-HR.TWA; OSHA 29-CFR-1910, 1 ppm 8-HR TWA, 2 ppm 15 minute STEL. CAS# 50-00-0 Emission rate of formaldehyde into air; <0.0041 lb. formaldehyde/hr per 100,000 sq. feet of as-is overlay paper^{***}

* **Free phenol:** <0.25 %(wt) on as-is overlay paper^{****}; Exposure limits: ACGIH and OSHA 29-CFR-1910.1000 5 ppm (Skin) CAS# 108-95-2

* This material is subject to reporting under SARA TITLE III, Sec. 313. Both formaldehyde and phenolic compounds in the product may lead to allergic reactions in some people on handling the solid paper product. Proper Personal Protective Equipment (PPE) should be used according to a hazard assessment required under OSHA regulations (29 CFR 1910.132).

^{**}As measured by ASTM Method D-19 (Acetylacetone colorimetry after water extraction)

^{***}As measured by Small chamber Formaldehyde method FTM 3-1996 analyses @ 77°F/50% relative humidity by National Particleboard Association, Emission rate calculated as in ASTM E1333 Large Chamber method.

^{****}EPA Method 8040

Ingredients	CAS #	Weight % Max	Exposure Limits
*Formaldehyde	50-00-0	<0.02%	0.75 PPM ACGIH
*Methanol	67-56-1	<0.02%	200 PPM ACGIH
*Phenol	108-95-2	<0.02%	5.0 PPM ACGIH

* Closed-Caul Emission Test method (285°F/ 200psi/ 6.75 min)

Section III: Physical Data

Product is a solid containing resins which become semi-liquid during the curing process.

Specific gravity: Approx. 1.1

Percent volatile: Approx. 2.4% at 220F (Range: 1.5-3.0%)

Solubility in water: Approx. 7%

Appearance and Odor: Yellow medium-weight paper product, very slight aromatic odor.

Section IV: Fire and Explosion Hazard Data

Flashpoint: N.A.

Auto-ignition Temperature: variable (typically >440F)

Extinguishing Media: Water Spray, Carbon Dioxide foam or Dry Chemical as determined by surrounding fire.

Special fire fighting procedures: Self contained breathing apparatus (SCBA) is required. Product will produce combustion gases which may be toxic.

Unusual Fire and Explosion Hazards: None

Section V: Reactivity Data

Stability: Stable, hazardous polymerization will not occur.

Incompatibility: avoid contact with strong oxidizers.

Decomposition products may include: CO, CO₂, aldehydes, including formaldehyde, water, and phenolic resin fragments.

Section VI: Health Hazards

TLV: None.

Effects of overexposure: None

Regular handling: Long term exposure may cause skin rash in sensitized persons. Symptoms: skin rash on hands and face. During cure, such as hot pressing, in areas of inadequate ventilation, eye irritation (weeping), irritation of nose and throat, skin rash may occur. Fumes will aggravate asthma and other respiratory conditions.

Section VI: Health Hazards (continued)

Formaldehyde: Formaldehyde is classified as a "Suspected Carcinogen". It may cause upper respiratory and eye irritation.

Emergency And First Aid Procedures

Eyes: Flush with water.

Inhalation: Remove to fresh air.

Ingestion: Not applicable.

In all cases if irritation persists, obtain qualified medical advice.

Section VII: Spill or Leak Procedures

Steps to be taken in case material is released or spilled:

Collect material in closed containers, ensure that liquids contact does not produce runoff of applied resins, and dispose of properly per State, Local, and Federal regulations.

Waste Disposal Method:

Scrap can be disposed of in an approved industrial landfill (Oregon). Landfills should be lined to ensure proper disposal and the collection of leachable materials. Incineration or use of materials as "fiber based fuel" in suitable incinerators only in accordance with local, state and federal regulations.

Section VIII: Special Protection Information

Respiratory Protection: None under normal use conditions.

When entering areas where thermal decomposition products are present in excess, because of a fire or due to improper venting of decomposition products released during cure; self-contained breathing units (SCBA). Supplied air units or full face respirators with proper cartridges may be used, where ambient concentrations are known and within acceptable NIOSH, ACGIH, OSHA standards.

Ventilation: Local exhaust to control decomposition products during hot pressing operation to levels required by OSHA, state or local regulations.

Protective Gloves: Butyl, neoprene or nitrile rubber gloves.

Eye Protection: Safety glasses recommended, to protect against paper cuts.

Preventative Hygienic Practices: Wash exposed areas of skin with mild soap and cool water.

Section IX: Special Precautions

Precautions to be taken in Handling and Storing : Store in a cool, dry and vented space with packaging left intact until use. Failure to do so may result in the accumulation of formaldehyde and reduce the useful life of the product.

Other precautions: None

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