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H.M.I.S.	
HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	See Below

These ratings should be used only as part of fully implemented H.M.I.S. program.

MATERIAL SAFETY DATA SHEET

PREPARED BY DURO DYNE 6/2005
REVISED 3/2001

SECTION I

TRADE NAME: DURO DYNE QUIETURN VANES
MANUFACTURER CODE I.D.: QV/QV14

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS NO.	%	TLV	PEL
FIBROUS GLASS	65997-17-3	83-97	1 fiber/cc	1 fiber/cc
UREA EXTENDED PHENOL FORMALDEHYDE RESIN	25104-55-6	3-17	None	None
WATER	7732-18-5	3-6	None	None
FORMALDEHYDE	50-00-0	0.2 max	CO.3 ppm	0.75 ppm
PHENOL (skin)*	108-95-2	0.65 max	5 ppm	5 ppm

TLV=ACGIH Ceiling, 8 hr. time weighted average (TWA); PEL=OSHA permissible exposure limit.
TLV and PEL limits are for respirable fibers length<5um, diameter>3um, aspect ratio<5:1 (NIOSH 7400B Method)

Phenol absorbed through the skin can contribute significantly to overall exposure.

SECTION III - HEALTH INFORMATION

PRIMARY ROUTES OF ENTRY: Via respirable fibers to the lungs and respiratory system and airborne fibers to eyes & skin.

Primary Target Organs: Lungs, Respiratory System, Skin and Eyes

Potential Health Effects:

Acute: Mechanical irritation of the skin, eyes and upper respiratory system.

Cronic: A 1987 epidemiological study of more than 16,000 U.S. man-made vitreous fiber manufacturing workers has shown no statistically significant increased risks of malignant or non-malignant diseases. A 1990 update of this study reported a small, statistically significant increase in respiratory cancer among workers when compared with the populations in their communities. Confounding factors such as smoking, exposure to other hazardous materials, etc., are thought to be responsible for this small apparent increase. An expanded study is currently underway to investigate other possible contributing factors.

Skin Contact: There are confirmed reports of contact dermatitis.

Eye Contact: A mechanical irritant which can cause moderate to severe eye irritation.

Ingestion: Non-hazardous when ingested. Potentially a mild irritant to the GI tract if excessive quantity is ingested.

Medical Conditions Aggravated by Exposure: Pre-existing chronic upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma. Skin disease such as dermatitis.

Carcinogenicity: While no longer listed as a possible carcinogen by IARC, respirable glass wool fibers are classified by NTP as Group IIB, (reasonably anticipated to be a human carcinogen). Fiber glass wool is classified as a nuisance dust by OSHA.

The uncured resin contains up to 0.2% free formaldehyde which is classified by IARC as group 2A (probably carcinogenic to humans) and by NTP as group IIB (reasonably anticipated to be a human carcinogen).

SECTION IV - FIRST AID AND EMERGENCY PROCEDURES

INHALATION: Remove to fresh air immediately. Drink water to clear throat and blow nose to evacuate dust. If coughing and irritation develop, call a physician.

EYES: Flush with large amounts of water for at least 15 minutes. See a physician if irritation persists.

SKIN: Normal good personal hygiene practices. Wash with mild soap and warm water after each exposure.

INGESTION: Emergency procedures not normally required. May be a temporary irritant to the GI system.

SECTION V - REACTIVITY DATA

STABILITY: Stable - Non- reactive product.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition of the resin may include Carbon Dioxide, Carbon Monoxide, Formaldehyde, Carbon Particulate and traces of Hydrogen Cyanide.

SECTION VI- ENVIRONMENTAL INFORMATION

WASTE DISPOSAL METHOD:

This product is not regulated under RCRA Hazardous Waste Regulations. May be disposed in landfill. If unsure, contact the local office of the USEPA, your local public health department or the local landfill regulators.

SECTION VII - PHYSICAL DATA

MELTING POINT: >1300° F

SPECIFIC GRAVITY: Variable

SOLUBILITY IN WATER: Insoluble

PURE/MIXTURE: Mixture

PHYSICAL FORM: White to bright yellow fibrous product with phenol-formaldehyde odor. May also be black. Some products have glass or polyester woven or non-woven mat facing.

SECTION VIII - FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA: Water, Foam, Dry Chemical or Carbon Dioxide.

FIRE AND EXPLOSION HAZARDS: In fire conditions, the binder will decompose giving off Carbon Monoxide, Carbon Dioxide, Carbon particulate and traces of Hydrogen Cyanide from pyrolysis of the resin.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and protective clothing. Dense smoke may limit visibility in enclosed areas.

SECTION IX - PERSONAL PROTECTION INFORMATION

RESPIRATORY : When over PEL/TLV wear an approved face mask such as 3M 8210, N95 or equivalent to protect against respirable glass wool fibers. Concentrations of fibers that exceed the recommendations of the mask manufacturer will need a higher level of respiratory protection, such as a half mask respirator with appropriate dust filters.

EYES: Wear safety glasses with side shields, goggles or face shield when handling, installing or fabricating to protect against dust and fibers.

GENERAL: Wear long sleeved, loose fitting clothes and head covering to minimize fiber irritation. Wash work clothes separately to prevent fiber migration. Rinse washer thoroughly.

ENGINEERING CONTROLS: Maintain sufficient mechanical or natural ventilation to assure fiber concentrations remain below PEL/TLV. Use local exhaust if necessary. Power equipment should be equipped with properly designed dust collection devices.

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE:

Store in dry area. Keep area clean. Vacuum clean dust. Use a dust suppressant if sweeping is necessary.

SPECIAL SENSITIVITY or INCOMPATIBILITY:

Hydrofluoric acid will react with and dissolve glass.

HANDLING PRECAUTIONS:

Assure proper respiratory protection if dust potential exceeds PEL/TLV.

SECTION XI - ACCIDENTAL RELEASE MEASURES

Clean-Up Procedures: **Pick up or shovel material into waste container taking care to minimize dust and fiber generation. Vacuum clean-up is preferred. If sweeping is required, use a dust suppressant.**

Personal Precautions: **If dusty conditions exist, wear a face mask approved for use with dusts such as 3M 8210, N95 or equivalent.**

Environmental Precautions: **This product is not regulated under RCRA Hazardous Waste Regulations. May be disposed in landfill. Comply with federal, state and local regulations.**

SECTION XII - TOXICOLOGICAL/ECOLOGICAL INFORMATION

LD₅₀: N/Av

LC₅₀: N/Av

Toxicological Hazards: See Emergency Overview.

Ecological Hazards: No data exists for this product.

Teratogenicity, Mutagenicity, other Reproductive Effects: None known.

SECTION XIII - REGULATORY INFORMATION

OSHA Status: **This product is considered hazardous under OSHA criteria.**

TSCA/CEPA Status: **All components of this product are included in the TSCA and CEPA Chemical Inventories.**

CERCLA Reportable Quantity: **N/Av**

SARA Title III:

Section 302 Extremely Hazardous: **This product contains no extremely hazardous substances as defined and listed in section #302.**

Section 311/312 Hazard Categories: **Reportable as a hazardous substance. Check with your Local Emergency Planning Committee for reportable quantities.**

Section 3113 Toxic Chemicals: **This product does not contain substances which are reportable under Section 313.**

California Safe Drinking Water and Toxic Enforcement Act (Prop. 65): **Warning. This product contains the following substance known to the state to cause cancer: Glasswool, airborne particles of respirable size.**

Canada (WHMIS): **This product is a class D2A controlled product under Canadian WHMIS regulations.**

SECTION XIV - REGULATORY INFORMATION

Emergency Overview: The 2002 Monograph issued by the International Agency for Research on Cancer (IARC) removed fiber glass wool from its list of possible carcinogens (Group 2B). It is now classified as Group 3, not classifiable as to human carcinogenicity.

OSHA and other U.S. government agencies still require that a warning label be placed on this product. This warning identifies a possible hazard while not identifying the degree of risk. OSHA regulations do not require respiratory protection as long as the exposure to fiber glass wool does not exceed 1 fiber/cubic centimeter (f/cc) TWA (8 hour time weighted average). Fiber Glass wool exposure in the home, commercial buildings and manufacturing facilities are generally found to be less than 1 f/cc. Installers and fabricators should be aware of their exposure levels and take appropriate actions if needed per recommended work practices. Guidance on typical fiber exposures for various applications can be obtained from the North American Insulation Manufacturers Association. www.NAIMA.org. We STRONGLY recommend following all safe work practices while working with and/or installing fiber glass wool products.

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