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H.M.I.S.	
HEALTH	0
FLAMMABILITY	1
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 6/05
REVISED 7/04

SECTION I

TRADE NAME: DURO DYNE GRAY VINYL BLADE SEAL
MANUFACTURER CODE I.D.: BKDBE-3

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS #	WEIGHT %
CALCIUM CARBONATE	471-34-1	5-10
TITANIUM DIOXIDE	13463-67-7	5-10

SECTION III - HEALTH INFORMATION

EMERGENCY OVERVIEW: This mixture has not been evaluated as a whole. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating or processing. The end-user (fabricator) must take the necessary precautions (mechanical, ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions. May emit Hydrogen Chloride (HCL) or Carbon Monoxide (CO) under fire conditions.

POTENTIAL HEALTH EFFECTS

ROUTES OF EXPOSURE: Inhalation, Ingestion, Skin contact

ACUTE EXPOSURE

INHALATION: Resin particles, like other inert materials, can be mechanically irritating.

INGESTION: May be harmful if swallowed.

EYES: Resin particles, like other inert materials, are mechanically irritating to eyes.

SKIN: Experience shows no unusual dermatitis hazard from routine handling.

CHRONIC EXPOSURE TOXICITY

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

This product contains the following components which, in their pure form, have the following characteristics:

CAS #	CHEMICAL NAME	EFFECT	TARGET ORGAN
471-34-1	Calcium Carbonate	Irritant	Eyes, Skin
13463-67-7	Titanium Dioxide	Systemic Effects	Respiratory system

LC50/LD50

This product contains the following components which, in their pure form, have the following toxicity data:

CAS #	CHEMICAL NAME	ROUTE	VALUE	SPECIES
471-34-1	Calcium Carbonate	Oral LD50	6450 mg/kg	rat

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

SECTION IV- FIRST AID AND EMERGENCY PROCEDURES

INHALATION: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.

INGESTION: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.

EYE: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.

SKIN: Wash off with soap and plenty of water. If skin irritation persists seek medical attention.

SECTION V- FIRE AND AND EXPLOSION DATA

FLASHPOINT: N/A

FLAMMABLE LIMITS

U.E.L: N/A **L.E.L:** N/A

AUTOIGNITION TEMPERATURE: N/A

EXTINGUISHING MEDIA: Carbon dioxide blanket, water spray, dry powder, foamnone

SPECIAL FIREFIGHTING PROCEDURES: Fullface self-contained breathing apparatus (SCBD) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.

UNUSUAL FIRE/EXPLOSION HAZARDS: May emit Hydrogen Chloride (HCL) or Carbon Monoxide (CO) under fire conditions. Carbon dioxide (CO₂), Carbon Monoxide (CO), oxides of Nitrogen (NO_x), other hazardous materials, and smoke are all possible.

SECTION VI- ENVIRONMENTAL INFORMATION

ACCIDENTAL RELEASE

PERSONAL PRECAUTIONS: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.

ENVIRONMENTAL PRECAUTIONS: Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.

CLEAN UP: Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal.

DISPOSAL

PRODUCT: Like most thermoplastic plastics the product can be recycled. Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

CONTAMINATED PACKAGING: Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

SECTION VII- PHYSICAL DATA

FORM: Solid

APPEARANCE: Pellets, powder

COLOR: Gray

ODOR: Very faint

MELTING POINT/RANGE: Not determined

BOILING POINT: N/A

WATER SOLUBILITY: Insoluble

EVAPORATION RATE: N/A

SPECIFIC GRAVITY: Not determined

BULK DENSITY: N.E.

VAPOR PRESSURE: N/A

VAPOR DENSITY: N/A

pH: N/A

SECTION IX- HANDLING AND STORAGE

HANDLING: Take measures to prevent the buildup of electrostatic charge. Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials.

STORAGE: Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

SECTION X- PERSONAL PROTECTION

RESPIRATORY: No personal respiratory protective equipment normally required.

EYE/FACE: Safety glasses with side-shields.

HAND: Protective gloves.

SKIN AND BODY: Long-sleeved clothing.

ADDITIONAL PROTECTIVE MEASURES: Safety shoes.

GENERAL HYGIENE CONSIDERATIONS: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday. This product may contain residual vinyl chloride monomer (VCM) (CAS# 75-01-4) below 8.5 ppm (0.00085%). It is unlikely, under normal working conditions with adequate ventilation, that the exposure limits will be exceeded for residual VCM. However, the user should take the necessary precautions (e.g. mechanical ventilation, local exhaust ventilation, air-monitoring, respiratory protection, etc.) to ensure airborne levels of any vapors including VCM or dusts that may be released during heating or processing are below regulated levels.

ENGINEERING MEASURES: Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

EXPOSURE LIMITS

INGREDIENT	VALUE	EXPOSURE TIME	EXPOSURE TYPE	LIST:
CALCIUM CARBONATE	5 MG/M3	PEL:	Respirable Fraction	OSHA Z1
	15 MG/M3	PEL:	Total Dust	OSHA Z1
	10 MG/M3	Time weighted Avg. (TWA)		ACGIH
TITANIUM DIOXIDE	10 MG/M3	Time weighted Avg. (TWA)		ACGIH
	15 MG/M3	PEL:	Total Dust	OSHA Z1

SECTION XI- STABILITY AND REACTIVITY

STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.

INCOMPATIBLE MATERIALS: Strong acids and oxidizing agents. Avoid contact with acetal homopolymers and acetal copolymers during processing.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible. Prolonged heating (approximately 30 minutes or more) above 392F (200C) or short term heating at 482F (250C) may result in product decomposition and evolution of carbon monoxide and hydrogen chloride.

SECTION XI- TRANSPORT AND ECOLOGICAL INFORMATION

TRANSPORT

U.S. DOT CLASSIFICATION: Not regulated for transportation.

ICAO/IATA (air): Not regulated for transportation.

IMO/IMDG (maritime): Not regulated for transportation.

ECOLOGY

PERSISTENCE AND DEGRADABILITY: Not readily biodegradable.

ENVIRONMENTAL TOXICITY: Adverse ecological impact is not known or expected under normal use.

BIOACCUMULATION POTENTIAL: No data available.

ADDITIONAL ADVICE: N/A

SECTION XII- REGULATORY INFORMATION

U.S. REGULATIONS

OSHA STATUS: Classified as hazardous based on components.

TSCA STATUS: All components of this product are listed on or exempt from the TSCA inventory.

U.S. EPA CERCLA HAZARDOUS SUBSTANCES (40 CFR 302)

N/A

CALIFORNIA PROPOSITION 65: WARNING! This product contains a chemical known to the State of California to cause cancer.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE

N/A

SARA TITLE III SECTION 313 TOXIC CHEMICALS

N/A

CANADIAN REGULATIONS:

NATIONAL POLLUTANT RELEASE INVENTORY (NPRI)

N/A

WHMIS CLASSIFICATION: Not controlled.

DSL: All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

NATIONAL INVENTORIES:

AUSTRALIA AICS, CHINA IECS, JAPAN ENCS, KOERA KECI, PHILIPPINES PICCS: Not determined

EUROPE EINECS: Listed

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