WSA MATERIAL SAFETY DATA SHEET

CREATION DATE: JUNE 26, 1990 REVISION DATE: NOVEMBER 29, 2008

DURO DYNE CANADA INC. 5030 Francois-Cusson Lachine, Quebec H8T 1B3 Phone: (514) 422-9760

Fax: (514) 636-0328, (888) DURODYNE **Emergency Telephone Numbers:**

MEDICAL: 866-359-5657 (Health and Safety Call Center 24 hours)

TRANSPORT: CHEMTREC: 800-424-9300 (24 hours)

CHEMTREC International: 703-527-3887 (call collect)

(CANADIAN WSA DIFFERS FROM WSA SOLD BY DURO DYNE U.S.A.)

SECTION 01: WSA CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER: N40366A

PRODUCT NAME: BORDEN EB 4442 (40-366A)

IDH NUMBER: 1218370

MANUFACTURER:

Henkel Canada Corporation (Formerly Nacan Products Limited) 2225 Meadowpine Boulevard

Mississauga, Ontario L5N 7P2 Canada

Emergency Telephone Numbers:

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SECTION 02: WSA HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Possible cancer hazard. HARMFUL IF INHALED. EYE IRRITANT. Possible birth defect hazard. Grey Liquid Slight odor.

EYE CONTACT: Will cause eye irritation. May cause permanent damage if eye is not immediately

SKIN CONTACT: Repeated or prolonged contact may result in mild irritation.

INHALATION: Vapour, if generated, can cause irritation of the eyes, nose and respiratory tract. Vapours and/or aerosols which may be formed at elevated temperatures may cause systemic effects.

INGESTION: Ingestion may cause irritation of the gastrointestinal tract.

SECTION 03: WSA COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL FAMILY: Water based polymer emulsion

Component	CAS Number	Concentration (weight %)
Ethylene glycol	107-21-1	1 – 5
Silica, Crystalline	14808-60-7	0.1 – 1.0

SECTION 04: WSA FIRST-AID MEASURES

EYE CONTACT: Irrigate with eyewash solution or clean water until pain is relieved. If symptoms develop, obtain medical attention.

SKIN CONTACT: Wash skin with soap and water.

INHALATION: Remove to fresh air. Administer oxygen to aid breathing. Get medical attention.

INGESTION: If swallowed, induce vomiting only if victim is alert. Get prompt medical attention. DO NOT

attempt to give anything by mouth to a drowsy or unconscious person.

SECTION 05: WSA FIREFIGHTING MEASURES

AUTOIGNITION: Not available FLASH POINT: > 100° C

EXTINGUISHING MEDIA: CO2; Foam; Water Fog

SPECIAL FIREFIGHTING PROCEDURES: Fire fighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

FIRE AND EXPLOSION HAZARDS: This is a water-based product and presents no particular fire or explosion hazard. Dry polymer film will burn. Product contains low level of organic volatiles which may be emitted at elevated temperatures.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, Carbon dioxide, unknown hydrocarbons.

LOWER EXPLOSION LIMIT (%): Not applicable UPPER EXPLOSION LIMIT (%): Not applicable

SECTION 06: WSA ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES: Spills should be taken up with sand, earth or any suitable absorbent material and placed in containers. Spill area can be washed with water; collect wash water for approved disposal. Do not flush to storm sewer or waterway.

For safety and environmental precautions, please review entire Material Safety Data Sheet for necessary information.

SECTION 07: WSA HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient

HANDLING / STORAGE: Product contains small amount of residual monomer (less than 0.1%) which could accumulate in the unvented headspace of drums or bulk storage vessels. Open drums in ventilated area. Avoid breathing vapors. Avoid extreme temperatures. Protect from freezing. This material should not be spilled, discharged, or flushed into sewers or public waterways.

SENSITIVITY TO STATIC ELECTRICITY: No SENSITIVITY TO MECHANICAL IMPACT: No

SECTION 08: WSA EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	Exposure Limits
Ethylene glycol	100 mg/m3 Ceiling (aerosol only)
Silica, Crystalline	0.025 mg/m3 TWA (respirable fraction).
Vinyl acetate	10 ppm (ACGIH - TWA) 15 ppm (ACGIH - STEL)

VENTILATION REQUIREMENTS: General. Sufficient to keep vapours below TLV exposure limits.

EYE PROTECTION: Safety glasses, goggles or face shield to protect against splashing.

GLOVES: Impervious neoprene or rubber gloves are recommended.

CLOTHING: Standard industrial hygiene procedures should be practiced.

CHANGE/REMOVAL OF CLOTHING: Remove contaminated clothing and launder before reuse.

WASH REQUIREMENTS: Wash before eating, drinking, or using washroom facilities.

RESPIRATOR: No respiratory protection is recommended while working with this material. However, if operating conditions create high vapor or mist concentration, use of an approved respirator is recommended.

SECTION 09: WSA PHYSICAL AND CHEMICAL PROPERTIES

PURE SUBSTANCE OR MIXTURE: Mixture

PHYSICAL FORM: Liquid

COLOUR: Gray ODOUR: Slight

ODOR THRESHOLD: Not available

pH AS IS: Approximately 7

pH IN (1%) SOLUTION: Not applicable OXIDIZING PROPERTIES: Not applicable

BOILING POINT: >100° C.

MELTING / FREEZING POINT: 0° C. SOLUBILITY IN WATER: Miscible PARTITION COEFFICIENT:

(n-octanol/water): Not available

SPECIFIC GRAVITY (WATER=1): 1.333 EVAPORATION RATE: 1 (Water = 1) VAPOR PRESSURE: 17.5 @ 20° C. VAPOR DENSITY (air = 1): > 1.0 VOLATILES (%): Approximately 47

VOLATILE ORGANIC COMPOUNDS: < 5 g/liter

AUTOIGNITION: Not available FLASH POINT: > 100° C

SECTION 10: WSA STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS DECOMPOSITION PRODUCTS: Stable under normal temperature and pressure.

MATERIALS TO AVOID: Materials that react with water.

HAZARDOUS POLYMERIZATION CONDITIONS: Hazardous polymerization will not occur.

SECTION 11: WSA TOXICOLOGICAL INFORMATION

ROUTE OF ENTRY: Skin absorption; Inhalation; Ingestion; Skin contact; Eye contact

CHRONIC (LONG TERM) EFFECTS OF EXPOSURE

EFFECTS OF CHRONIC EXPOSURE: Ethylene glycol is a possible embryotoxin and teratogen based on animal studies. Product may contain small amounts of residual vinyl acetate. Vinyl acetate vapors have been shown to cause tumors in the respiratory tract of laboratory animals exposed to 600 ppm over a lifetime; 200 ppm caused irritation; 50 ppm produced no observable effect. There is no evidence of adverse effects to humans exposed to levels at or below ACGIH TLV. Although this product has not been tested for chronic effects it is judged as having a low order of toxicity based on component information.

TARGET ORGANS: Respiratory system; Eyes; Skin

POSSIBLE BIRTH DEFECT HAZARD: Yes

CARCINOGEN: No

Possible cancer hazard.

Risk of cancer depends on duration and level of exposure.

NOTES ON ORAL TOXICITY:

ETHYLENE GLYCOL	Oral LD50: Rat 6000-13000 mg/kg	Moderately toxic. May cause
		nausea, vomiting and diarrhea.
SILICA, CRYSTALLINE		No hazard in normal industrial use.

NOTES ON DERMAL TOXICITY

ETHYLENE GLYCOL	Dermal LD50: Rabbit 9530 mg/kg	Repeated or prolonged skin contact may result in mild irritation. Can be absorbed through skin causing systemic toxic effects.
SILICA, CRYSTALLINE		Non-irritant

NOTES ON INHALATION TOXICITY:

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ETHYLENE GLYCOL	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
SILICA, CRYSTALLINE	Exposure to high concentrations may produce lung damage. Dust is irritant to the respiratory tract. Dust generated during product use is in the respirable range.

NOTES ON EYE IRRITATION:

NOTES ON ETE INMITATION.	
ETHYLENE GLYCOL	May cause eye irritation.
SILICA, CRYSTALLINE	Particulates may scratch eye surfaces and cause
	mechanical irritation.

SECTION 12: WSA ECOLOGICAL INFORMATION

POTENTIAL TO BIOACCUMULATE: Not available

AQUATIC TOXICITY: Not available

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SECTION 13: WSA DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Use government approved waste disposal service. EMPTY CONTAINER WARNINGS: Empty containers may contain product residue; follow MSDS and label warnings even after they have been emptied.

SECTION 14: WSA TRANSPORTATION INFORMATION

T.D.G. CLASS

SHIPPING NAME: Not Regulated

SECTION 15: WSA REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS CLASS: D2A D2B

Canadian Domestic Substance List (DSL) On Inventory

SECTION 16: WSA OTHER INFORMATION

RECOMMENDED USE	Adhesive
MSDS DATE	November 29, 2008
SECTIONS MODIFIED SINCE PREVIOS ISSUE	1; 2; 3;16
PREPARED BY	Regulatory Affairs

WSA ADDITIONAL INFORMATION

** The information given and the recommendations made herein apply to our product(s) alone and are not combined with other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. No guarantee of accuracy is made. It is the purchaser's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes. **

WSA TECHNICAL CONTACT

FOR INFORMATION CONTACT: M.S.D.S. Co-Ordinator **Duro Dyne Canada Inc** (514) 422-9760