

MATERIAL SAFETY DATA SHEET

DUQUESNE REFRACTORIES

SECTION I - MATERIAL IDENTIFICATION AND USE		Page 1 of 3
Product Name DAMASCUS 70 A.B.	WHMIS CLASSIFICATION D-2-A	
Manufacturer Duquesne Refractories, Div. of Multibond Inc. 550 Marshall Avenue Dorval, Quebec H9P 1C9 EMERGENCY TELEPHONE 514-631-7738	Supplier Duquesne Refractories, Div. of Multibond Inc. 550 Marshall Avenue Dorval, Quebec H9P 1C9 EMERGENCY TELEPHONE	
Chemical Formula Composite Mixture	Chemical Family Alumino - Silicates	
Trade Name (Synonym) Refractory Plastic		
Product Use Lining metal treating vessels and industrial heating enclosures		

SECTION II - HAZARDOUS INGREDIENTS		
Ingredients	Conc. %	HAZARD INFORMATION
Calcined Bauxitic Kaolin	20-30	CAS # 1302-93-8; nuisance dust OSHA PEL 5 mg/m ³ respirable dust; contains less than 1% crystalline silica (cristobalite) [CAS # 14464-46-1; ACGIH TLV: TWA 0.05 mg/m ³ respirable fraction; TC _{Lo} : 16 mppcf/8H/17.9Y-I:PUL ihl-hmn]
Calcined Bauxite	30-42	CAS # 1302-93-8; contains less than 1% crystalline silica; OSHA PEL 5 mg/m ³ respirable dust and 15 mg/m ³ total dust (classified as a nuisance dust)
Aluminum Silicate	3-10	CAS # 1302-76-7; ACGIH TLV: TWA 2 mg(Al)/m ³ ; TD _{Lo} : 90 mg/kg:ETA ipl-rat - may contain up to 8% cristobalite CAS # 14464-46-1; ACGIH TLV: TWA 0.05 mg/m ³ respirable fraction; TC _{Lo} : 16 mppcf/8H/17.9Y-I:PUL ihl-hmn
Hydrous Aluminum Silicate	15-20	CAS # 1332-58-7, contains approximately 7% quartz (CAS # 14808-60-7, OSHA PEL TWA respirable fraction 0.1 mg/m ³ , TC _{Lo} : 16 mppcf/8H/17.9Y-I:PUL ihl-hmn)
Hydrous Aluminum Silicate	1-5	CAS # 1302-78-9; TD _{Lo} : 12000 g/kg/28W-C:ETA orl-mus; may contain 2% - 6% crystalline quartz CAS # 14808-60-7, OSHA PEL TWA respirable fraction 0.1 mg/m ³ , TC _{Lo} : 16 mppcf/8H/17.9Y-I:PUL ihl-hmn
Aluminum Sulphate	0-5	CAS # 10043-01-3; ACGIH TLV: TWA 2 mg(Al)/m ³ ; LD ₅₀ : 6207 mg/kg orl-mus
Water	5-10	CAS # 7732-18-5; Exposure Limits not listed; TD _{Lo} : 42.86 g/kg orl-man

MATERIAL SAFETY DATA SHEET

DUQUESNE REFRACTORIES

Product Name DAMASCUS 70 A.B.		Page 2 of 3	
SECTION III - PHYSICAL DATA			
Physical State	Gas	Liquid	Solid <u>X</u>
Vapour Pressure (mm Hg)	N/A	Odour Threshold (ppm)	N/A
Vapour Density (air=1)	N/A	Specific Gravity	Approx 3.0
pH	N/A	Evaporation Rate	N/A
Boiling Pt (°C)	N/A	Freezing Pt (°C)	N/A
% Volatile (by volume)	N/A	Solubility in Water (@ 20°C)	N/A
Coefficient of Oil/Water Distribution		N/A	
Odour/Appearance Damp grey-brown plastic mass with a slight odour of humid earth			
SECTION IV - FIRE AND EXPLOSION DATA			
Flammability? If yes, state conditions		Yes	No <u>X</u>
Flashpoint (°C) & Method		N/A	
Upper Explosion Limit (% by volume)	N/A	Special Procedures	None
Lower Explosion Limit (% by volume)	N/A	Auto Ignition Temp (°C)	N/A
Explosive Power	N/A	Means of Extinction	None
Hazardous Combustion Products	None	Rate of Burning	N/A
Sensitivity to Impact	None	Sensitivity to Static Discharge	None
SECTION V - REACTIVITY DATA			
Chemical Stability? If no, state conditions		Yes <u>X</u>	No
Incompatibility? Yes No <u>X</u> (Specify)			
Reactivity and under what conditions		Material will harden when dried and heated.	
Hazardous Decomposition Products		Will emit small amounts of SOx when heated to decomposition	
SECTION VI - TOXICOLOGICAL PROPERTIES			
Route of Entry	Inhalation Acute <u> </u>	Eye Contact <u>X</u>	Inhalation Chronic <u>X</u>
	Skin Contact <u>X</u>	Ingestion <u>X</u>	Skin Absorption
Effects of Acute Exposure	Eye, throat and skin irritation, exposure to dust during tearout after use may cause eye and throat irritation		
Effects of Chronic Exposure	This product may become dusty if allowed to dry, or during tearout after use. This dust will cause irritation to eyes and throat and prolonged exposure may result in lung changes and silicosis		
LD ₅₀ of Product (Species & Route)	Not Established		
LC ₅₀ of Product (Species)	Not Established		

MATERIAL SAFETY DATA SHEET

DUQUESNE REFRACTORIES

Product Name	DAMASCUS 70 A.B.		
SECTION VI - TOXICOLOGICAL PROPERTIES (CONT'D)	Page 3 of 3		
Exposure Limits:	Not established		
Irritancy:	Possible on contact		
Sensitization:	Possible on contact		
Synergistic Materials:	None Known		
Carcinogenicity	<u>X</u>	Reproductive Effects	
Teratogenicity		Mutagenicity	
SECTION VII - PREVENTIVE MEASURES			
Gloves:	Rubber or vinyl to prevent skin contact		
Eye:	Safety glasses or goggles		
Footwear:	As required in the workplace		
Clothing:	To prevent skin contact		
Respiratory:	NIOSH approved dust respirator		
Other:	Barrier cream to prevent skin contact if unusually sensitive		
Engineering Controls:	Ventilation is required if dust is generated during tearout, generally no engineering controls are required for the as received product		
Leak & Spill Procedure:	Gather into an appropriate container		
Waste Disposal:	Dispose at any landfill site according to local regulations		
Handling Procedures & Equipment:	Avoid skin/eye contact, minimize generation of dust		
Shipping & Storage Requirements:	Keep containers intact to maintain physical stability		
SECTION VIII - FIRST AID MEASURES			
General:	Avoid skin or eye contact, avoid inhaling dust		
Skin:	Wash thoroughly with water, if irritation persists, consult a physician		
Eye:	Flush with plenty of water, if irritation persists consult a physician		
Inhalation:	Move to fresh air, if difficulty persists consult a physician		
Ingestion:	Drink plenty of water, if difficulty persists consult a physician		
SECTION IX - PREPARATION OF MSDS			
Sources Used	Dangerous Properties of Industrial Materials by N.I. Sax		
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