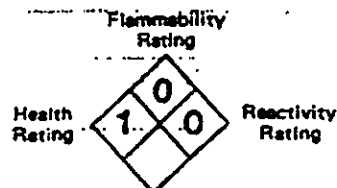


MET016



HAZARD RATING
Please rate consistent with NFPA Code

MATERIAL SAFETY DATA SHEET

SECTION I NAME AND PRODUCT

MANUFACTURER'S NAME NORTON COMPANY	CONTACT THOMAS Z. RICHARDS
ADDRESS (STREET, CITY, STATE AND ZIP CODE) 1 NEW BOND STREET, WORCESTER, MA 01606-2698	EMERGENCY TELEPHONE NO. 617-853-1000 - Ext. 2690
TRADE NAME, COMMON NAME OR SPECIFICATION ORGANIC BONDED GRINDING WHEELS	APPROVED BY <i>JDR</i> DATE 11-21-95
CHEMICAL FAMILY OR PRODUCT TYPE ANY GRADE	

SECTION II COMPOSITION PER 29CFR 1910.1200 (G) (4)

CHEMICAL NAME	COMMON NAME	REG (Y/N)	CAS #	OSHA PERMISSIVE EXPOSURE LIMIT	AGGIH TLV	CARCINOGEN (Y/N)
Alpha-Alumina	Alundum	Y	1344-28-1	15mg/m ³ (Total Dust)	10mg/m ³ (Total Dust)	N
Impurities (SiO ₂ + Fe ₂ O ₃ + CaO + MgO)						
Titanium Oxide	Titania	Y	13463-67-7	15mg/m ³	10mg/m ³	N
Carbon Carbide	Crystolon	Y	409-21-2	15mg/m ³ (Total Dust)	10mg/m ³ (Total Dust)	N
Zirconia Oxide	Zirconia	Y	NAIF	5mg/m ³	5mg/m ³	N
The grinding wheel may be comprised of 1 or more of the above abrasives. The chemicals listed below may be a part of the bond system.						
Fluorides (as F)	N/A	Y	NA	2.5mg/m ³	2.5mg/m ³	N
Calcium Oxide	Lime	Y	1305-78-8	5mg/m ³	2mg/m ³	N
Iron Disulphide	Pyrites	N	12068-85-8	NAIF	NAIF	N
Creosote Oil	Carbosota	Y	8001-58-9	.2mg/m ³	.2mg/m ³	Y
Barium Sulfate	Barytes	Y	7727-43-7	.5mg/m ³	.5mg/m ³	N
Glass, Fibrous or Dust	Fiberglass	Y	NAIF	NAIF	10mg/m ³	N
Sulfur	Sulfur	Y	7704-34-9	NAIF	NAIF	N
Tin	Tin	Y	7440-31-5	2mg/m ³	2mg/m ³	N

*Materials are regulated by OSHA 29 CFR 1910.1200, Hazard Communication Standard, and/or the Massachusetts General Law Chapter 111F, Right To Know Regulations weight.

SECTION III PHYSICAL AND CHEMICAL DATA

BOILING POINT NAIF	MELTING POINT NAIF	SPECIFIC GRAVITY 2-4
VAPOR PRESSURE NAIF	PERCENT VOLATILE BY VOL NAIF	VAPOR DENSITY NAIF
EVAPORATION RATE NAIF	SOLUBILITY IN WATER Slight	SOLUBILITY IN ALCOHOL NAIF
SOLUBILITY IN OTHER SOLVENT NAIF	APPEARANCE AND ORDER SOLID PRODUCT: MAY GIVE OFF ODOR IN USE.	

SECTION IV SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE - NONE.
OTHER PRECAUTIONS:

This grinding wheel specification may contain a small amount (1% or less) of a creosote oil. Only trace amounts of this substance from the grinding wheel will be in the total materials released during grinding. The supplier of the raw creosote states that "prolonged and repeated skin exposure may result in skin cancer."

SECTION V CORROSIVITY AND REACTIVITY DATA

STABILITY	UNSTABLE <input type="checkbox"/>	STABLE <input checked="" type="checkbox"/>	POLMERIZATION	MAY OCCUR <input type="checkbox"/>	WILL NOT OCCUR <input checked="" type="checkbox"/>
INCOMPATABILITY (MATERIALS TO AVOID) NAIF					
DECOMPOSITION PRODUCTS In use, dust and decomposing organic fumes are generated. In most cases, the material removed from the workpiece will be significantly greater than the grinding wheel components. Coolants may produce other decomposition products.					

SECTION VI HEALTH, FIRST AID AND MEDICAL DATA

PRIMARY ROUTE(S) OF ENTRY	ACUTE AND CHRONIC HEALTH EFFECTS AND EFFECTS OF OVEREXPOSURE	FIRST AID AND MEDICAL INFORMATION
INHALATION (DURING GRINDING)	ACUTE: COUGHING, SHORTNESS OF BREATH. CHRONIC: MAY AFFECT BREATHING CAPACITY.	REMOVE TO FRESH AIR. ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN MEDICAL ASSISTANCE.
INGESTION (DURING GRINDING)	NO KNOWN ADVERSE EFFECTS, BUT INGESTION NOT RECOMMENDED.	OBTAIN MEDICAL ASSISTANCE.
SKIN CONTACT & ABSORPTION (DURING GRINDING)	SOME MAY EXPERIENCE SKIN IRRITATION FROM DUST.	WASH AFFECTED AREAS WITH SOAP AND WATER. OBTAIN MEDICAL ASSISTANCE.
EYE (DURING GRINDING)	DUSTS MAY IRRITATE EYES.	WASH WITH LARGE AMOUNTS OF WATER. OBTAIN FIRST AID AND MEDICAL ASSISTANCE, IF NEEDED.
OTHER POTENTIAL HEALTH RISKS (DURING GRINDING)	GRINDING MAY CREATE ELEVATED SOUND LEVELS WHICH MAY AFFECT HEARING.	OBTAIN MEDICAL ASSISTANCE.

SECTION VII STORAGE, HANDLING AND USE PROCEDURES

NORMAL STORAGE AND HANDLING
SEE ANSI STANDARD B7.1.

NORMAL USE
HANDLE WITH ADEQUATE VENTILATION. SEE OSHA 29CFR1910.94 (VENTILATION) and
29CFR1910.1000 (AIR CONTAMINATES)

STEPS TO BE TAKEN IN CASE OF LEAKS OR SPILLS.
NORMAL CLEANUP PROCEDURES.

WASTE DISPOSAL METHOD
STANDARD LANDFILL METHODS CONSISTENT WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS.
PRODUCTS WITH LISTED FLOURIDES MAY HAVE SLIGHTLY SOLUBLE FLOURIDE SWARF.

SECTION VIII PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE) AS NEEDED. FOR APPROVED DUST RESPIRATORS SEE OSHA 29CFR1910.134.

VENTILATION	LOCAL RECOMMENDED
	MECHANICAL (GENERAL) RECOMMENDED
	OTHER NAIF

PROTECTIVE GLOVES AS DESIRED BY USER

EYE PROTECTION RECOMMENDED SEE OSHA 29CFR1910.133

OTHER EQUIPMENT AS NEEDED HEARING PROTECTION SEE OSHA 29CFR1910.215 (HEARING PROTECTION)

MEASURES TO BE TAKEN DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT THAT HAS BEEN IN CONTACT WITH THIS MATERIAL.
SEE SECTIONS VII & VIII

SECTION IX FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	NAIF	(METHOD USED)	N/A	FLAMMABLE LIMITS	LEL N/A	UEL N/A
EXTINGUISHING MEDIA	USE WATER					
FIRE FIGHTING PROCEDURES	NONE					
EXPLOSION POTENTIAL	NAIF					

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