

Curtin Matheson Scientific, Inc. 1225 N MICHAEL DRIVE

WOOD DALE, IL 60191-1019

MAIL TO:

SCHOOLCRAFT COLLEGE

HPS MEMBER

18600 HAGGERTY RD.

LIVONIA, MI 48152-2696

MATERIAL SAFETY DATA SHEET

SECTION 1 - NAME AND PRODUCT

MANUFACTURER NAME AND ADDRESS EM SCIENCE

A DIV OF EM INDUSTRIES

P.O. BOX 70

GIBESTOWN PHONE NJ 08027 1-800-424-9300(CHEMTREC)

COMMON NAME (ON LABEL)

CHROMIUM OXIDE

TRADE NAME & SYNONYMS

CHROMIC OXIDE, CHROME GREEN CHROMIUM OXIDE

CHEMICAL NUMBER: MCX1600-2 ITEM NUMBER: 0748686

VNDR CATLG NBR:

ENTRY DATE: 02-24-90 CHANGE DATE: 08-15-95

PO NUMBER: 82676

CHEMICAL FAMILY

OXIDE

CHEMICAL FORMULA

CR203

SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENT	CAS	% (WT)	TLV	PEL
CHROMIUM OXIDE	1308-38-9	100.00	.000 SEC.5	.000 SEC.5
	* 1			
	11 °	4 2		

PEL: Permissible Exposure Limit established by the Occupational Safety and Health Administration (OSHA).

TLY: Threshold Limit Value established by the American Conference of Governmental Industrial Hygienists, 1986-87.

OTHER INGREDIENT INFORMATION NONE OTHER THAN SPECIFIED PRODUCT.

SECTION 3 - PHYSICAL DATA

BOILING POINT	VOLATILE BY VOLUME (%)	VAPOR PRESSURE		
3000C	NONE	N/A		
MELTING POINT	VAPOR DENSITY	SOLUBILITY IN WATER		
2435C	N/A	INSOLUBLE		
BUAC				

EVAPORATION RATE (BUAC = 1) | SPECIFIC GRAVITY

APPEARANCE AND ODOR
GREEN CRYSTALLINE POWDER

OTHER PHYSICAL DATA MOLECULAR WEIGHT.: 152.02

SECTION 4 - FIRE AND EXPLOSION DATA		
FLASH POINT		
NONCOMBUSTIBLE		
LOWER EXPLOSIVE LIMIT	UPPER EXPLOSIVE LIMIT	
N/A	N/A	
EXTINGUISHING MEDIA USE ANY SUITABLE FOR ADJACENT MATERIAL.	1 .47	
USE ANY SUITABLE FOR ADJACENT MATERIAL.		
UNUSUAL FIRE AND EXPLOSION HAZARDS NONE INDICATED.		
NONE INDICATED.		
SPECIAL FIRE FIGHTING PROCEDURES WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECT		
CLOTHING.	TIVE	
SECTION 5 -	HEALTH HAZARD DATA	
HEALTH HAZARDS (ACUTE & CHRONIC) SEE SIGNS AND SYMPTOMS OF EXPOSURE.		
SEE SIGNS AND SYMPTOMS OF EXPOSURE.		
	1.00	
PRIMARY ROUTES OF EXPOSURE INHALATION, INGESTION		
MINEATION, INGESTION		
SIGNS AND SYMPTOMS OF EXPOSURE DUST INHALATION HARMFUL TO RESPIRATORY PASSAGES AND	A LUNCE MARKET IS	
SWALLOWED. IRRITATING ON CONTACT WITH SKIN, EYES,	LUNGS. HARMFUL IF	
OR MUCOUS MEMBRANES.		

SECTION 5 - HEALTH HAZARD DATA (CONTINUED)		
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE RESPIRATORY CONDITIONS.		
CARCINOGENICITY	luzp lace	
IARC CANCER REVIEW: ANIMAL INADEQUATE EVIDENCE.	NTP Yes No IARC Yes No OS	SHA _{□ Yes} 및 No
ANIMAL MADEGOATE EVIDENCE.		
EMERGENCY AND FIRST AID PROCEDURES GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE. SKI	N. WASH WITH	
SOAP AND WATER THOROUGHLY, EYES: FLUSH THOROUGHLY WITH Y	WATER	
IMMEDIATELY FOR AT LEAST 15 MINUTES. INHALATION: REMOVE T RESPIRATION IF BREATHING HAS STOPPED.		
INGESTION: IF CONSCIOUS, DRINK WATER AND INDUCE VOMITING I MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UN	MMEDIATELY AS DIRECTED BY CONSCIOUS PERSON.	
THRESHOLD LIMITS / TOXICITY DATA ACGIH TLV/OSHA PEL:TWA: 0.5 MG(CR)/CU.M.		
TOXICITY DATA: N/E TOXICOLOGICAL FINDINGS:		
TESTS ON LABORATORY ANIMALS INDICATE MATERIAL MAY PRODU EFFECTS AND CAUSE TUMORS. CITED IN REGISTRY OF TOXIC EFFEC	JCE ADVERSE MUTAGENIC TS OF SUBSTANCES (RTECS).	
SECTION 6 - RI	EACTIVITY DATA	
STABILITY Unstable Stable D		
CONDITIONS TO AVOID DUSTING.		20
INCOMPATIBILITY (MATERIALS TO AVOID) NONE INDICATED.		

PAGE 4 OF F

SECTION 6 - REACTIVITY DATA (CONTINUED)	77.55
HAZARDOUS DECOMPOSITION OR BYPRODUCTS NONE INDICATED.	
HAZARDOUS POLYMERIZATION May Occur Will Not Occur	
CONDITIONS TO AVOID WILL NOT OCCUR.	
	2."
SECTION 7 - SPILL, LEAK, AND DISPOSAL PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED EVACUATE THE AREA OF ALL UNNECESSARY PERSONNEL. WEAR SUITABLE PROTECTIVE EQUIPMENT LISTED UNDER EXPOSURE/PERSONAL PROTECTION. ELIMINATE ANY IGNITION SOURCES UNTIL THE AREA IS DETERMINED TO BE FREE FROM EXPLOSION OR FIRE HAZARDS. CONTAIN THE RELEASE AND ELIMINATE ITS SOURCE, IF THIS CAN BE DONE WITHOUT RISK. TAKE UP AND CONTAINERIZE FOR PROPER DISPOSAL AS DESCRIBED UNDER DISPOSAL. COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS ON REPORTING RELEASES. REFER TO REGULATORY INFORMATION FOR REPORTABLE QUANTITY AND OTHER REGULATORY DATA.	
WASTE DISPOSAL METHOD EPA WASTE NUMBERS: DOOT TREATMENT: SPECIFIED TECHNOLOGY- CONTACT YOUR LOCAL PERMITTED WASTE DISPOSAL SITE (TSD) FOR PERMISSIBLE TREATMENT SITES. ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE, AND FEDERAL REGULATIONS.	
SECTION 8 - SPECIAL PROTECTION INFORMATION	
RESPIRATORY PROTECTION IF WORKPLACE EXPOSURE LIMITS OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE TLV/PEL), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING AND/OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.	
LOCAL VENTILATION	
SEE OTHER	
MECHANICAL VENTILATION	
SEE OTHER	
SPECIAL VENTILATION	4
SEE OTHER	

	PAGE 5 OF 5
SECTION 8 - SPECIAL PROTECTION INFORMATION (CONTINUED)	
OTHER VENTILATION MATERIAL SHOULD BE HANDLED OR TRANSFERRED IN AN APPROVED FUME HOOD OR WITH ADEQUATE VENTILATION.	
PROTECTIVE GLOVES	
PROTECTIVE GLOVES SHOULD BE WORN TO PREVENT SKIN CONTACT (NEOPRENE OR EQUIV)	
EYE PROTECTION	
SAFETY GLASSES WITH SIDE SHIELDS SHOULD BE WORN AT ALL TIMES.	
OTHER PROTECTIVE CLOTHING OR EQUIPMENT SEE OTHER.	
JEE OTTEN	
SECTION 9 - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE KEEP CONTAINER CLOSED AND PROTECTED FROM PHYSICAL DAMAGE STORE IN A WELL-VENTILATED AREA WASH THOROUGHLY AFTER HANDLING. DO NOT TAKE INTERNALLY. DO NOT BREATHE DUST. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. EYE WASH AND SAFETY EQUIPMENT SHOULD BE READILY AVAILABLE.	
SECTION 10 - OTHER INFORMATION	
MISCELLANEOUS INFO. HEALTH: 2 FLAMMABILITY: 0; REACTIVITY: 0 SPECIAL HAZARDS.: N/A; DOT SHIPPING NAME: (NON-REGULATED); DOT NUMBER: (NONE); COMMENTS: TESTS ON LABORATORY ANIMALS INDICATE MATERIAL MAY PRODUCE N/E = NOT ESTABLISHED. N/A = NOT AVAILABLE:. N/G = NOT GIVEN	