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.

TORONTO MASTERBATCHES (CANADA) 2 LONE OAK COURT TORONTO ONTARIO M9C 5R9 PHONE: 416-847-7000

FOR ALL EMERGENCIES 269-753-8434 PREPARED BY: PRODUCT SAFETY DEPARTMENT

CLARIANT WEBSITE: HTTP://WWW.CLARIANTMASTERBATCH.COM

PRODUCT DESCRIPTION: DC 001.000% DC PRODUCT CODE: 02DRV-520

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***** MATERIAL SAFETY DATA SHEETS *****

THE ATTACHED MATERIAL SAFETY DATA SHEET (MSDS) IS AN IMPORTANT DOCUMENT. THE OSHA HAZARDOUS COMMUNICATION STANDARD REQUIRES US TO FORWARD A MSDS PRIOR TO OR ACCOMPANYING AN INITIAL SHIPMENT OF A PRODUCT AND THE "STANDARD" REQUIRES YOUR COMPANY TO KEEP THE MSDS ON FILE. * IF YOU ARE NOT RESPONSIBLE FOR HEALTH AND SAFETY IN YOUR COMPANY PLEASE INSURE THAT YOUR HEALTH AND SAFETY MANAGER RECEIVES THIS DOCUMENT.

*

THANK YOU.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

HEALTH ---->2 FLAMMABILITY ---->1

REACTIVITY ----->0

PERSONAL PROTECTION -->E

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2 LONE TORONTO	D MASTERBATCHES (CANADA) OAK COURT D ONTARIO M9C 5R9 416-847-7000	
FOR ALL EMERGENCIES PREPARED BY: PRODUCT S		
	CLARIANT WEBSITE: HTTP:\\WWW.C	LARIANTMASTERBATCH.COM
PRODUCT DESCRIPTION: I PRODUCT CODE: 0		
SECTION I - PRODUCT IN	NFORMATION:	
PRODUCT DESCRIPTION:		
PRODUCT CODE:	DC 001.000% DC	
CHEMICAL NAME/FAMILY: COLC	DRANT	
SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION:		
THIS PRODUCT CONTAINS, AS A COMPONENT, THE SUBSTANCE(S) LISTED BELOW WHICH IS IDENTIFIED AS A HAZARDOUS CHEMICAL UNDER THE CRITERIA OF THE OSHA HAZARD COMMUNICATION STANDARD 29CFR1910.1200 OSHA HAZARD COMMUNICATION STANDARD 29CFR 1910.1200.		
CAS NUME BACM 7440 6818 1346 1344	BER DESCRIPTION MG/M3 MG/M3 LIM MPD BARIUM COMPOUND N.E. N.E. - 0-39-3 BARIUM COMPOUNDS, SOLUBLE 0.5 0.5 0.5 36-91-4 COPPER CHROMITE SPINEL N.E. N.E. - 53-67-7 TITANIUM DIOXIDE (DUST) 10.0 10.0 - 4-28-1 ALUMINUM OXIDE (DUST) 10.0 10.0 5.	IER DOES NOT IITS EXCEED(%) 45.50 5 7.25 1.50 6 1.50 30.05 0 .30 0
SECTION III - PRISICAL/CREMICAL CRARACTERISTICS:		
E SOLU APPE	BOILING POINT: N/A SPECIFIC GRAVITY: N/A VAPOR PRESSURE: N/A MELTING POINT: Non Determined VAPOR DENSITY: N/A EVAPORATION RATE: N/A JBILITY IN WATER: INSOLUBLE EARANCE AND ODOR: COLORED DRY POWDER - NO SIGNIFICANT ODO	
SECTION IV - FIRE AND	EXPLOSION HAZARD DATA:	
FLASH POINT (METHOD USED): THERE IS A COMPONENT IN THIS PRODUCT WITH A FLASH POINT OF 225 C. THE METHOD USED TO DETERMINE THIS IS: COC		

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA: (CONT) ALL OTHER COMPONENTS USED IN THIS PRODUCT EITHER HAVE A HIGHER FLASH POINT OR ARE NOT COMBUSTIBLE AND DO NOT HAVE A FLASH POINT.

EXTINGUISHING MEDIA:

WATER SPRAY, FOAM, CARBON DIOXIDE, OR DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES: EQUIP FIREFIGHTERS WITH SELF-CONTAINED BREATHING APPARATUS (SCBA) AND TURN-OUT GEAR.

UNUSUAL FIRE AND EXPLOSION HAZARDS: TOXIC VAPORS CAN BE EMITTED UNDER FIRE CONDITIONS. QUANTITIES OF DUST IN AIR MAY BE COMBUSTIBLE.

SECTION V - REACTIVITY DATA:

STABILITY: STABLE -> X UNSTABLE ->

- STABILITY (CONDITIONS TO AVOID): AVOID EXPOSURE TO HEAT, SPARK, OR OPEN FLAME.
- INCOMPATILBILITY (MATERIALS TO AVOID): AVOID CONTACT WITH STRONG ALKALI, AMINES.
- HAZARDOUS DECOMPOSITION OR BYPRODUCTS: THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE HAZARDOUS FUMES OF TITANIUM OXIDE.

HAZARDOUS POLYMERIZATION: WILL OCCUR -> WILL NOT OCCUR -> X

HAZARDOUS POLYMERIZATION (CONDITIONS TO AVOID): AVOID EXCESSIVE DUST IN VICINITY OF ELECTRICAL OR OTHER SPARK GENERATING EOUIPMENT. AVOID EXTREME HEAT.

SECTION VI - HEALTH HAZARD DATA:

HEALTH HAZARDS (ACUTE AND CHRONIC):

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SECTION VI - HEALTH HAZARD DATA: (CONT)

HEALTH HAZARD: INHALATION

SHORT TERM OVEREXPOSURE BY IHALATION TO TITANIUM DIOXIDE MAY CAUSE IRRITATION OF NOSE, THROAT, AND LUNGS WITH COUGH, DIFFICULTY BREATHING OR SHORTNESS OF BREATH. STUDIES SHOWED THAT EMPLOYEES WHO HAD BEEN EXPOSED TO TITANIUM DIOXIDE WERE AT NO GREATER RISK OF DEVELOPING LUNG CANCER THAN WERE EMPLOYEES WHO HAD NOT BEEN EXPOSED TO TITANIUM DIOXIDE. INHALATION OF AMORPHOUS SILICA MAY CAUSE DRYING OF MUCOUS MEMBRANES AND IRRITATION OF NOSE, THROAT, AND LUNGS WITH NOSEBLEEDS, COUGH AND DIFFICULTY BREATHING OR SHORTNESS OF BREATH.

HEALTH HAZARD: SKIN

MAY CAUSE IRRITATION TO SKIN

HEALTH HAZARD: INGESTION MAY CAUSE HEADACHE, NAUSEA, VOMITING, BREATHING DIFFICULTIES, AND WEAKNESS. POSSIBLE KIDNEY DAMAGE MAY RESULT FROM INGESTION OF LARGE OUANTITES.

HEALTH HAZARD: EYE CONTACT CONTACT WITH EYE MAY CAUSE EYE IRRITATION

IS ANY CHEMICAL IN THIS PRODUCT AT A CONCENTRATION OF 0.1 % OR MORE CLASSIFIED AS A CARCINOGEN BY IARC, NTP, OR OSHA? YES

SIGNS AND SYMPTOMS OF EXPOSURE:

* THE FOLLOWING INFORMATION PROVIDED ON THE BELOW HAZARDOUS INGREDIENT(S) APPLIES TO THE INGREDIENT(S) IN THE PURE DRY FORM.

BARIUM: MAY CAUSE IRRITATION OF EYES, NOSE & THROAT. SKIN CONTACT MAY CAUSE DERMATITIS. AN NTP BIOASSAY OF PIGMENT RED 53:1 (D&C RED 9), SHOWED A STATISTICALLY SIGNIFICANT INCREASE OF SPLENIC SARCOMAS & NEOPLASTIC NODULES OF THE LIVER IN MALE RATS. NO EVIDENCE OF CARCINOGENCITY WAS FOUND IN FEMALE RATS OR IN MALE OR FEMALE MICE.

COPPER CHROMITE: OVEREXPOSURE MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT

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SECTION VI - HEALTH HAZARD DATA: (CONT)

IRRITATION.

TITANIUM DIOXIDE, ALUMINUM OXIDE: IARC HAS LISTED TITANIUM DIOXIDE AS GROUP 2(B) POSSIBLE CARCINOGENIC TO HUMANS. EXPOSURE TO DUST MAY CAUSE TEMPORARY DRYING EFFECT AND /OR MILD IRRITATION OF THE NOSE, THROAT, AND LUNGS AND MAY AGGRAVATE PRE-EXISTING CONDITIONS.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: * THE FOLLOWING INFORMATION PROVIDED ON THE BELOW HAZARDOUS INGREDIENT(S) APPLIES TO THE INGREDIENT(S) IN THE PURE DRY FORM.

BARIUM: NONE KNOWN

COPPER CHROMITE: RESPIRATORY AND SKIN DISORDERS AGGRAVATED BY DUST.

TITANIUM DIOXIDE, ALUMINUM OXIDE: TITANIUM DIOXIDE LISTED BY IARC AS GROUP 2(B) POSSIBLE CARCINOGENIC TO HUMANS. ALUMINUM OXIDE (RESPIRATORY DISORDERS)

EMERGENCY FIRST AID: INHALATION REMOVE TO CLEAN, FRESH AIR AND TREAT SYMPTOMATICALLY.

EMERGENCY FIRST AID: SKIN

REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO EVIDENCE OF CHEMICAL REMAINS (AT LEAST 15 - 20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

EMERGENCY FIRST AID: INGESTION FOR EXCESSIVE INGESTION DRINK WATER OR MILK. CALL A PHYSICIAN

EMERGENCY FIRST AID: EYE CONTACT WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE, OCCASIONALLY LIFTING UPPER AND LOWER LIDS, UNTIL NO EVIDENCE OF CHEMICAL REMAINS (AT LEAST 15 - 20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE:

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SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE: HANDLING: SPILLAGE WEARING APPROPRIATE PERSONNEL PROTECTIVE EQUIPMENT, CONTAIN SPILL, COLLECT IN A SUITABLE CONTAINER. HANDLING: WASTE DISPOSAL OBEY APPLICABLE FEDERAL, STATE AND LOCAL LAWS. DO NOT CONTAMINATE ANY LAKES, STREAMS, PONDS OR UNDERGROUND WATER SUPPLY.

HANDLING: STORAGE

AVOID GENERATING DUST. AVOID CONTACT WITH EYES, SKIN, OR CLOTHING. WASH THOROUGHLY AFTER HANDLING. STORE IN A DRY WELL VENTILATED AREA. KEEP CONTAINER TIGHTLY CLOSED.

HANDLING: OTHER PRECAUTIONS AGRESSIVE MEASURES SHOULD BE TAKEN TO AVOID DUST ACCUMULATION; EMPLOY BONDING, GROUNDING, VENTING, AND EXPLOSION RELIEF PROVISIONS IN ACCORDANCE WITH ACCEPTED ENGINEERING PROCEDURES.

SECTION VIII - CONTROL MEASURES:

CONTROL: RESPIRATORY PROTECTION IN DUSTY ATMOSPHERES USE NIOSH/MSHA APPROVED RESPIRATORS

CONTROL: VENTILATION

USE ONLY WITH ADEQUATE VENTILATION AND DUST CONTAINMENT.

CONTROL: GLOVES

GLOVES RESISTANT TO CHEMICAL PENETRATION.

CONTROL: EYE PROTECTION GOGGLES

CONTROL: OTHER CLOTHING

WEAR LONG SLEEVED SHIRTS AND PANTS TO MINIMIZE SKIN CONTACT.

CONTROL: WORK/HYGIENE

OBSERVE PROPER INDUSTRIAL HYGIENIC PRACTICES ACCORDING TO REGULATIONS.

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 7440-50-8
 .45
 COPPER (DUST)

 7440-47-3
 .65
 CHROMIUM (III) AS (CR)
TSCA - ALL INGREDIENTS USED TO PRODUCE THE ABOVE FORMULATION ARE IN COMPLIANCE WITH THE TOXIC SUBSTANCES AND CONTROL ACT INVENTORY AS REOUIRED BY FEDERAL LAW. _____ SECTION X - STATE REGULATORY INFORMATION: _____ CA PROPOSITION 65: WARNING - ANY COMPONENT OF THIS PRODUCT WHICH CONTAINS MATERIALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER ARE LISTED BELOW: PLEASE NOTE IT IS THE RESPONSIBILITY OF THE END USER TO DETERMINE IF ITS FINISHED PRODUCTS REQUIRE LABELING UNDER CALIFORNIA PROPOSITION 65. HTTP://WWW.OEHHA.CA.GOV/PROP65/PROP65_LIST/NEWLIST.HTML D&C RED #9 LEAD-10PPM, MERCURY-<0.3PPM, CHROMIUM-43% , CADMIUM-<10PPM: CA PROPOSITION 65: WARNING - ANY COMPONENT OF THIS PRODUCT WHICH CONTAINS MATERIALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE DEVELOPMENTAL AND REPRODUCTIVE TOXICANT HARM ARE LISTED BELOW: PLEASE NOTE IT IS THE RESPONSIBILITY OF THE END USER TO DETERMINE IF ITS FINISHED PRODUCTS REQUIRE LABELING UNDER CALIFORNIA PROPOSITION 65.

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SECTION X - STATE REGULATORY INFORMATION: (CONT)

HTTP://WWW.OEHHA.CA.GOV/PROP65/PROP65_LIST/NEWLIST.HTML LEAD-10PPM, MERCURY-<0.3PPM, CHROMIUM-43% , CADMIUM-<10PPM:

CANADIAN WHMIS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS GIVEN IN WHMIS IS SHOWN BELOW: HTTP://WWW.CSST.OC.CA/EN/PREVENTION/REPTOX/PAGES/LIST-WHMIS-CAS-50-84.ASPX

CLASS D DIV. 2B

TITANIUM DIOXIDE: D2A VERY TOXIC MATERIAL CAUSING OTHER TOXIC EFFECTS

FLORIDA: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL CHEMICAL AS LISTED IN THE FLORIDA IS SHOWN BELOW: NONE

MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN BELOW:

NONE

NEW JERSEY: NON-HAZARDOUS INGREDIENTS ARE BEING WITH HELD AS TRADE SECRET INFORMATION. ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED ON THE NEW JERSEY HAZARDOUS LIST IS GIVEN IN SECTION II OF THIS MSDS. ANY LISTED CHEMICALS NOT SHOWN IN SECTION II ARE AS FOLLOWS:

NONE

PENNSYLVANIA: NON-HAZARDOUS INGREDIENTS ARE BEING WITH HELD AS TRADE SECRET INFORMATION. ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED ON THE PENNSYLVANIA HAZARDOUS LIST IS GIVEN IN SECTION II OF THIS MSDS. ANY LISTED CHEMICALS NOT SHOWN IN SECTION II ARE AS FOLLOWS:

NONE

RHODE ISLAND:ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL CHEMICAL AS LISTED IN THE RHODE ISLAND SUBSTANCE LIST IS SHOWN IN SECTION II OF THIS MSDS. ANY LISTED CHEMICALS NOT SHOWN IN SECTION II ARE AS FOLLOWS: NONE

THIS INFORMATION IS ACCURATE AND RELIABLE TO THE BEST OF OUR KNOWLEDGE.

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