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CLARIANT PLASTICS & COATING CANADA, INC. MASTERBATCHES

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

\*\*\*\*\* 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

MATERIAL SAFETY DATA SHEET PAGE: 2

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SECTION I - PRODUCT INFORMATION:

\_\_\_\_\_\_

PRODUCT DESCRIPTION:

DC 001.000% DC

PRODUCT CODE:

02DRV-520 VERSION NUMBER: 2 DATE: 5/09/19

CHEMICAL NAME/FAMILY:

COLORANT

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.

		OSHA	ACGIH		
CAS		$\mathtt{PEL}$	${ t TLV}$	OTHER	DOES NOT
NUMBER	DESCRIPTION	MG/M3	MG/M3	LIMITS	EXCEED(%)
BACMPD	BARIUM COMPOUND	N.E.	N.E.	_	45.50
7440-39-3	BARIUM COMPOUNDS, SOLUBLE	0.5	0.5	0.5	7.25
68186-91-4	COPPER CHROMITE SPINEL	N.E.	N.E.	_	1.50
13463-67-7	TITANIUM DIOXIDE (DUST)	10.0	10.0	_	30.05
1344-28-1	ALUMINUM OXIDE (DUST)	10 0	10 0	5 0	3.0

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS:

BOILING POINT: N/A SPECIFIC GRAVITY: N/A VAPOR PRESSURE: N/A

MELTING POINT: Non Determined

VAPOR DENSITY: N/A EVAPORATION RATE: N/A SOLUBILITY IN WATER: INSOLUBLE

APPEARANCE AND ODOR: COLORED DRY POWDER - NO SIGNIFICANT ODOR

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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MATERIAL SAFETY DATA SHEET PAGE: 3

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PRODUCT DESCRIPTION: DC 001.000% DC

PRODUCT CODE: 02DRV-520

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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.

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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 EQUIPMENT. AVOID EXTREME HEAT.

SECTION VI - HEALTH HAZARD DATA:

HEALTH HAZADDS (AGUITE AND GUDONIG):

HEALTH HAZARDS (ACUTE AND CHRONIC):

MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY D.
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DATE: 5/09/19

PAGE:

PRODUCT DESCRIPTION: DC 001.000% DC

PRODUCT CODE: 02DRV-520

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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

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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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PRODUCT DESCRIPTION: DC 001.000% DC

PRODUCT CODE: 02DRV-520

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SECTION VI - HEALTH HAZARD DATA: (CONT)

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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.

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SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE:

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MATERIAL SAFETY DATA SHEET PAGE: 6

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PRODUCT DESCRIPTION: DC 001.000% DC

PRODUCT CODE: 02DRV-520

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SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE:

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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.

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SECTION VIII - CONTROL MEASURES:

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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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PRODUCT DESCRIPTION: DC 001.000% DC

PRODUCT CODE: 02DRV-520

SECTION VIII - CONTROL MEASURES: (CONT)

SECTION IX - OTHER REGULATORY INFORMATION:

SARA - THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372: THIS INFORMATION SHOULD BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

DOES NOT CAS # EXCEED(%) DESCRIPTION BACMPD 45.50 BARIUM COMPOUND 7440-39-3 7.25 BARIUM SOLUBLE COMPOUNDS (BA) 1.50 CHROMIUM (III) COMPOUND CRCMPD 1.50 COPPER COMPOUND CUCMPD 7440-50-8 .45 7440-47-3 .65 COPPER (DUST) CHROMIUM AS ELEMENT (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.

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## SECTION X - STATE REGULATORY INFORMATION:

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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:

HEXAVALENT CHROMIUM 100PPM

TITANIUM DIOXIDE - AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE (80 - 100 응).

CA PROPOSITION 65: WARNING - ANY COMPONENT OF THIS PRODUCT WHICH CONTAINS MATERIALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE DEVELOPMENTAL AND REPRODUCTIVE TOXICANT ----- DATE: 5/09/19
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PRODUCT CODE: 02DRV-520

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SECTION X - STATE REGULATORY INFORMATION: (CONT)

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. 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.QC.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:

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MATERIAL SAFETY DATA SHEET PAGE: 9

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SECTION X - STATE REGULATORY INFORMATION: (CONT)

NONE

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