

MURSATT CHEMICALS LIMITED 11 REGALCREST COURT WOODBRIDGE, ONTARIO, CANADA, L4L 8P3 (905)-850-8444

PRODUCT: VINYL PLUS CODE: MUR0017

SECTION 01: IDENTIFICATION

MUR0017 VINYL PLUS N.AV. N.AV.

MURSATT CHEMICALS LIMITED 11 REGALCREST COURT WOODBRIDGE, ONTARIO CANADA L4L 8P3

EMERGENCY PHONE NO...... CANUTEC (613)-996-6666.

SECTION 02: HAZARD IDENTIFICATION



HAZARD CLASSIFICATION.....

FLAMMABLE LIQUIDS - CATEGORY 4. CORROSIVE TO METALS - CATEGORY 1. OXIDIZING LIQUIDS — CATEGORY 3. ACUTE TOXICITY (ORAL) - CATEGORY 4. SKIN CORROSION - CATEGORY 1B. SERIOUS EYE DAMAGE - CATEGORY 1. SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - CATEGORY 3 RESPIRATORY SYSTEM. CARCINOGENICITY — CATEGORY 1B. DANGER.

SIGNAL WORD.....HAZARD STATEMENT.....

H226 FLAMMABLE LIQUID AND VAPOUR. H290 MAY BE CORROSIVE TO METALS. H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. H318 CAUSES SERIOUS EYE DAMAGE. H302 HARMFUL IF SWALLOWED. H272 MAY INTENSIFY FIRE; OXIDIZER. H335 MAY CAUSE RESPIRATORY IRRITATION. H350 MAY CAUSE

CANCER THROUGH PROLONGED OR REPEATED EXPOSURE.

PRECAUTIONARY STATEMENT.....

P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. – NO SMOKING. P233 KEEP CONTAINER TIGHTLY CLOSED. P240 GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT. P241 USE EXPLOSION-PROOF ELECTRICAL/VENTILATING/LIGHTING/EQUIPMENT. P242 USE ONLY NON-SPARKING TOOLS. P280 WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE PROTECTION. P303+P361+P353 IF ON SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER. P403+P235 STORE IN A WELL-VENTILATED PLACE. KEEP COOL. P405 STORE LOCKED UP. P501 DISPOSE OF CONTENTS/CONTAINER TO APPROPRIATE WASTE SITE OR RECLAIMER IN ACCORDANCE WITH LOCAL AND NATIONAL REGULATIONS. P234 KEEP ONLY IN ORIGINAL CONTAINER. P390 ABSORB SPILLAGE TO PREVENT MATERIAL DAMAGE. P406 STORE IN CORROSIVE RESISTANT CONTAINER WITH A RESISTANT INNER LINER. P260 DO NOT BREATHE DUST/FUME/GAS/MIST/VAPOURS/SPRAY. P264 WASH SKIN THOROUGHLY AFTER HANDLING. P301+P330+P331 IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE VOMITING. P363 WASH CONTAMINATED CLOTHING BEFORE REUSE. P304+P340+P310 IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN. P321 SPECIFIC TREATMENT (SEE SUPPLEMENTAL FIRST AID INSTRUCTIONS ON THE SAFETY DATA SHEET). P305+P351+P338+P310 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN. P270 DO NO EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT. P301+P312+P330 IF SWALLOWED: CALL A POISON CENTER OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH. P220 KEEP/STORE AWAY FROM CLOTHING/COMBUSTIBLE MATERIALS. P221 TAKE ANY PRECAUTION TO AVOID MIXING WITH COMBUSTIBLES P370+P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-RESISTANT FOAM FOR EXTINCTION. P261 AVOID BREATHING DUST/FUME/GAS/MIST/VAPOURS/SPRAY. P271 USE ONLY

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SECTION 02: HAZARD IDENTIFICATION

PRECAUTIONARY STATEMENT..... OUTDOORS OR IN A WELL-VENTILATED AREA. P312 CALL A POISON CENTER OR

DOCTOR/PHYSICIAN IF YOU FEEL UNWELL. P403+P233 STORE IN A

WELL-VENTILATED PLACE. KEEP CONTAINER TIGHTLY CLOSED. P201 OBTAIN SPECIAL INSTRUCTIONS BEFORE USE. P202 DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD. P308+P313 IF EXPOSED OR

CONCERNED: GET MEDICAL ADVICE/ATTENTION.

OTHER HAZARDS..... NONE.

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS				
HAZARDOUS INGREDIENTS	CAS#	WT. %		
DISODIUM METASILICATE	6834-92-0	8		
GLYCOL ETHER DB	112-34-5	~5		
NONYLPHENOL ETHOXYLATE	9016-45-9	1-2		
TETRASODIUM ETHYLENEDIAMINE TETRAACETATE TETRAHYDRATE	13235-36-4	<1		
ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE	53516-76-0	<1		
ALKYL(C12-14) DIMETHYL(ETHYLBENZYL) AMMONIUM CHLORIDE	85409-23-0	<1		
SODIUM NITRITE	7632-00-0	<1		

SECTION 04: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

IN CASE OF CONTACT, OR SUSPECTED CONTACT, IMMEDIATELY FLUSH EYES EYE CONTACT.....

WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL

ATTENTION IMMEDIATELY AFTER FLUSHING.

IN CASE OF CONTACT, IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR SKIN CONTACT.....

AT LEAST 15 MINUTES. GET MEDICAL ATTENTION. REMOVE CONTAMINATED

CLOTHING AND LAUNDER BEFORE REUSE

REMOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL INHALATION..... RESPIRATION. IF BREATHING IS DIFFICULT, GET IMMEDIATE MEDICAL ATTENTION.

DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN INGESTION.....

UNCONSCIOUS OR CONVULSING PERSON. SEEK IMMEDIATE MEDICAL ATTENTION. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS

TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS.

MOST IMPORTANT SYMPTOMS AND SEE SECTION 11.

EFFECTS, ACUTE OR DELAYED:

ATTENTION AND SPECIAL TREATMENT **NEEDED**

INDICATION OF ANY IMMEDIATE MEDICAL NOTES TO PHYSICIAN: TREATMENT BASED ON SOUND JUDGMENT OF PHYSICIAN AND INDIVIDUAL REACTIONS OF PATIENT.

SECTION 05: FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA...... UNSUITABLE EXTINGUISHING MEDIA..... SPECIAL HAZARDS ARISING FROM THE PRODUCT:

USE DRY CHEMICALS, CO2, ALCOHOL FOAM OR WATER SPRAY.

ISOLATE AND RESTRICT AREA ACCESS. USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS AND STRUCTURES. FIGHT FIRE FROM A SAFE DISTANCE AND FROM A PROTECTED LOCATION. DO NOT DIRECT A SOLID STREAM OF WATER OR FOAM INTO HOT, BURNING POOLS; THIS MAY CAUSE FROTHING AND INCREASE FIRE INTENSITY. THIS MATERIAL MAY PRODUCE A FLOATING FIRE HAZARD IN EXTREME FIRE CONDITIONS. CONTAINER MAY RUPTURE FROM GAS GENERATION IN A FIRE SITUATION.

HAZARDOUS COMBUSTION PRODUCTS.

CARBON DIOXIDE, CARBON MONOXIDE. TOXIC FUMES. ACRID SMOKE AND IRRITATING FUMES. OXIDES OF NITROGEN.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS:

FIRE FIGHTERS SHOULD WEAR FULL PROTECTIVE CLOTHING, INCLUDING SELF-CONTAINED BREATHING EQUIPMENT.

SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS..... KEEP UNNECESSARY PERSONNEL AWAY. KEEP PEOPLE AWAY FROM AND UPWIND OF SPILL/LEAK. ELIMINATE ALL IGNITION SOURCES (NO SMOKING,

FLARES, SPARKS, OR FLAMES IN IMMEDIATE AREA). WEAR APPROPRIATE

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SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS..... PROTECTIVE EQUIPMENT AND CLOTHING DURING CLEAN-UP. DO NOT BREATHE

MIST OR VAPOR. DO NOT TOUCH DAMAGED CONTAINERS OR SPILLED MATERIAL UNLESS WEARING APPROPRIATE PROTECTIVE CLOTHING. VENTILATE CLOSED SPACES BEFORE ENTERING THEM. LOCAL AUTHORITIES SHOULD BE ADVISED IF SIGNIFICANT SPILLAGES CANNOT BE CONTAINED. FOR PERSONAL PROTECTION,

SEE SECTION 8 OF THE SDS.

AVOID RELEASE TO THE ENVIRONMENT. PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. AVOID DISCHARGE INTO DRAINS, WATER COURSES ENVIRONMENTAL PRECAUTIONS.....

OR ONTO THE GROUND. INFORM APPROPRIATE MANAGERIAL OR SUPERVISORY

PERSONNEL OF ALL ENVIRONMENTAL RELEASES. USE APPROPRIATE

CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.
ISOLATE SPILL AND STOP LEAK WHERE SAFE. ABSORB WITH AN INERT DRY
MATERIAL AND PLACE IN AN APPROPRIATE WASTE DISPOSAL CONTAINER. METHODS AND MATERIALS FOR

CONTAINMENT AND CLEANING UP

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:..... AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING IN DUST.

KEEP THE CONTAINERS CLOSED WHEN NOT IN USE. WASH THOROUGHLY AFTER

HANDLING.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY IMCOMPATIBILITES: KEEP CONTAINERS TIGHTLY CLOSED. STORE IN CLEAN, TIGHTLY CLOSED STEEL CONTAINERS. PLACE AWAY FROM INCOMPATIBLE MATERIAL. DO NOT STORE IN ALUMINUM, FIBERGLASS, COPPER, BRASS, ZINC OR GALVANIZED CONTAINERS. STORE IN COOL, DRY AND WELL VENTILATED LOCATION. STORE LOCKED UP.

SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENTS	TWA	SIH TLV STEL	OSH/ PEL	A PEL STEL	NIOSH REL
DISODIUM METASILICATE	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.
GLYCOL ETHER DB	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.
NONYLPHENOL ETHOXYLATE	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.
TETRASODIUM ETHYLENEDIAMINE TETRAACETATE TETRAHYDRATE	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.
ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.
ALKYL(C12-14) DIMETHYL(ETHYLBENZ YL) AMMONIUM CHLORIDE	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.
SODIUM NITRITE	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.
APPROPRIATE ENGINEERING CONTROLS GENERAL VENTILATION. LOCAL EXHAUST VENTILATION AS NECESSARY TO MAINTAIN EXPOSURES TO WITHIN APPLICABLE LIMITS. INDIVIDUAL PROTECTION MEASURE SUCH AS PERSONAL PROTECTIVE					
EQUIPMENTS: HAND PROTECTION.					SH APPROVED
EYE PROTECTION					
PROTECTIVE CLOTH	ling	. ÁPRON, COVERALLS AND/OR OTHER RESISTANT PROTECTIVE CLOTHING.			
IMPERVIOUS CLOTHING. PROTECTIVE FOOTWEAR			IPTLY REMOVE		

CONTAMINATED CLOTHING AND WASH THOROUGHLY BEFORE REUSE.

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SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	LIQUID. LIGHT BLUE.
COLOR	LIGHT BLUE.
ODOUR	SLIGHT SWEET.
ODOURODOUR THRESHOLD	N.AV.
PH	12.2.
FREEZING/MELTING POINT	N.AV.
BOILING POINTFLASH POINT (C), METHOD	N.AV.
FLASH POINT (C), METHOD	N.AV.
EVAPORATION RATE	N.AV.
FLAMMABILITY (SOLIDS AND GASES)	N.AV.
UPPER FLAMMABLE LIMIT (% BY VOĹ.)	N.AV.
LOWER FLAMMABLE LIMIT (% BY VOL.) VAPOUR PRESSURE (MMHG)	N.AV.
VAPOUR PRESSURE (MMHG)	N.AV.
VAPOUR DENSITY (AIR=1)	N.AV.
RELATIVE DENSITY	1.03.
SOLUBILITY IN WATER (% W/W)	SOLUBLE.
COEFFICIENT OF WATER/OIL DIST	N.AV.
AUTO IGNITION TEMPERATURE	N.AV.
DECOMPOSITION TEMPERATURE	N.AV.
VISCOSITY	N.AV.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	STABLE UNDER NORMAL CONDITIONS.
CHEMICAL STABILITY:	STABLE UNDER RECOMMENDED HANDLING AND STORAGE CONDITIONS.
POSSIBILITY OF HAZARDOUS	HAZARDOUS POLYMERIZATION WILL NOT OCCUR.
REACTIONS:	
	CONTACT WITH ICOMPATIBLES, PRODUCT CAN OXIDIZE AT ELEVATED
	TEMPERATURES, GENERATION OF GAS DURING DECOMPOSITION CAN CAUSE
	PRESSURE IN CLOSED SYSTEMS
INCOMPATIBLE MATERIALS:	CONTACT WITH ACIDS. GENERATES HEAT WHEN MIXED WITH ACID. MAY REACT
	WITH AMMONIUM SALT SOLUTIONS RESULTING IN EVOLUTION OF AMMONIA GAS.
	FLAMMABLE HYDROGEN GAS MAY BE PRODUCED ON CONTACT WITH ALUMINUM,
	TIN, LEAD, AND ZINC. CARBON MONOXIDE GAS MAY BE PRODUCED ON CONTACT
HAZARDOUS PRODUCTS OF	
HAZARDOUS PRODUCTS OF	WITH REDUCING SUGARS. STRONG OXIDIZING AGENTS, STRONG BASES. ALKALIS. ORGANIC MATTER. COMBUSTIBLE MATERIAL. REDUCING AGENTS. THIOSULFATES. THIOCYANATES. AMMONIUM COMPOUNDS.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
DISODIUM METASILICATE	N.AV.	1153 MG/KG (ORAL, RAT); 770 MG/KG (ORAL, MOUSE)
GLYCOL ETHER DB	N.AV.	3384 MG/KG (ORAL, RAT);) 2700 MG/KG (DERMAL, RABBIT)
NONYLPHENOL ETHOXYLATE	N.AV.	1310 MG/KG (ORAL, RAT); >50 G/KG (ORAL, MOUSE); 2 ML/KG (DERMAL, RABBIT)
TETRASODIUM ETHYLENEDIAMINE TETRAACETATE TETRAHYDRATE	N.AV.	N.AV.
ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE	N.AV.	3560 MG/KG (DERMAL); 430 MG/KG (ORAL)
ALKYL(C12-14) DIMETHYL(ETHYLBENZYL) AMMONIUM CHLORIDE	N.AV.	3560 MG/KG (DERMAL); 430 MG/KG (ORAL)
SODIUM NITRITE	5.5 MG/L 4 H (INH, RAT)	85 MG/KG (ORAL, RAT)
INFORMATION ON LIKELY ROUTES OF		

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SECTION 11: TOXICOLOGICAL INFORMATION

EFFECTS OF CHRONIC EXPOSURE...... SUBCHRONIC DATA: IN A STUDY OF RATS FED SODIUM SILICATE IN DRINKING WATER FOR THREE MONTHS, AT 200, 600 AND 1800 PPM, CHANGES WERE

REPORTED IN THE BLOOD CHEMISTRY OF SOME ANIMALS, BUT NO SPECIFIC CHANGES TO THE ORGANS OF THE ANIMALS DUE TO SODIUM SILICATE

ADMINISTRATION WERE OBSERVED IN ANY OF THE DOSAGE GROUPS. ANOTHER STUDY REPORTED ADVERSE EFFECTS TO THE KIDNEYS OF DOGS FED SODIUM SILICATE IN THEIR DIET AT 2.4G/KG/DAY FOR 4 WEEKS, WHEREAS RATS FED THE SAME DOSAGE DID NOT DEVELOP ANY TREATMENT-RELATED EFFECTS.

DECREASED NUMBERS OF BIRTHS AND SURVIVAL TO WEANING WAS REPORTED FOR RATS FED SODIUM SILICATE IN THEIR DRINKING WATER AT 600 AND 1200

PPM

SIGNS AND SYMPTOMS OF OVEREXPOSURE

SODIUM NITRITE: IARC - 2A PROBABLY CARCINOGENIC TO HUMANS (NITRATE OR CARCINOGENICITY OF MATERIAL......

NITRITE (INGESTED) UNDER CONDITIONS THAT RESULT IN ENDOGENOUS

NITROSATION).

TERATOGENICITY..... N.AV. MUTAGENICITY..... N.AV. REPRODUCTIVE EFFECTS.....

N.AV.

SENSITIZING CAPABILITY OF MATERIAL N.AV. SYNERGISTIC MATERIALS...... N.AV. N.AV.

SECTION 12: ECOLOGICAL CONSIDERATIONS

ECOTOXICITY..... N.AV. PERSISTENCE AND DEGRADATION...... N.AV. BIOACCUMULATIVE POTENTIAL..... N.AV. MOBILITY IN SOIL N.AV. OTHER ADVERSE EFFECTS..... N.AV.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS:...... DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

PROPER SHIPPING NAME...... CORROSIVE LIQUIDS, N.O.S. (DISODIUM TRIOXOSILICATE).

TDG CLASSIFICATION..... PACKING GROUP..... ENVIRONMENTAL HAZARDS ACCORDING N.AV.

TO THE INTERNATIONAL MARITIME DANGEROUS GOODS CODE AND THE

UNITED NATIONS MODEL REGULATIONS:

SPECIAL PRECAUTIONS IN CONNECTION N.AV.

WITH TRANSPORT OR CONVEYANCE EITHER WITHIN OR OUTSIDE THE

PREMISES:

SECTION 15: REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL N.AV. REGULATIONS SPECIFIC TO THE

PRODUCT:

SECTION 16: OTHER INFORMATION

N.AV.=NOT AVAILABLE N.AP.=NOT APPLICABLE OTHER INFORMATION.....

THE DATA IN THIS MSDS RELATES ONLY TO THE SPECIFIC MATERIAL

DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PROCESS. THIS DATA IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS PRODUCT SPECIFICATIONS. NO WARRANTY, EITHER EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE

BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THET ARE APPROPRIATE.

PREPARED BY...... REGULATORY AFFAIRS

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