



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

PRODUCT: NU-BLU

CODE: MUR0041

SECTION 01: IDENTIFICATION

PRODUCT CODE..... MUR0041
 PRODUCT IDENTIFIER..... NU-BLU
 OTHER MEANS OF IDENTIFICATION..... N.A.V.
 RECOMMENDED USE AND COAGULANT FOR THE TREATMENT OF SWIMMING POOLS AND SPA WATERS.
 RESTRICTIONS ON USE
 SUPPLIER IDENTIFIER..... MURSATT CHEMICALS LIMITED
 11 REGALCREST COURT
 WOODBRIDGE, ONTARIO
 CANADA
 L4L 8P3
 EMERGENCY PHONE NO..... CANUTEC (613)-996-6666.

SECTION 02: HAZARD IDENTIFICATION



HAZARD CLASSIFICATION..... CORROSIVE TO METALS - CATEGORY 1 . SERIOUS EYE DAMAGE - CATEGORY 1.
 SIGNAL WORD..... DANGER.
 HAZARD STATEMENT..... H290 MAY BE CORROSIVE TO METALS. H318 CAUSES SERIOUS EYE DAMAGE.
 PRECAUTIONARY STATEMENT..... P234 KEEP ONLY IN ORIGINAL CONTAINER. P280 WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE PROTECTION. P305+P351+P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. P310 IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN. P390 ABSORB SPILLAGE TO PREVENT MATERIAL DAMAGE. P405 STORE LOCKED UP. P406 STORE IN CORROSIVE RESISTANT CONTAINER WITH A RESISTANT INNER LINER. P501 DISPOSE OF CONTENTS/CONTAINER TO APPROPRIATE WASTE SITE OR RECLAIMER IN ACCORDANCE WITH LOCAL AND NATIONAL REGULATIONS.
 OTHER HAZARDS..... NONE.

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	WT. %
ALUMINUM CHLORIDE HYDROXIDE SULFATE	39290-78-3	30-35

SECTION 04: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

INHALATION..... IF BREATHING IS DIFFICULT, REMOVE TO FRESH AIR AND PROVIDE OXYGEN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. SEEK MEDICAL ATTENTION IF COUGH OR OTHER SYMPTOMS DEVELOP.
 SKIN CONTACT..... WASH OFF IMMEDIATELY WITH PLENTY OF WATER REMOVING ALL CONTAMINATED CLOTHES AND SHOES. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS AND PERSISTS.
 EYE CONTACT..... RINSE IMMEDIATELY WITH PLENTY OF WATER, ALSO UNDER THE EYELIDS, FOR AT LEAST 10 MINUTES. IF POSSIBLE USE LUKEWARM WATER. SEEK MEDICAL ADVICE.
 INGESTION..... DO NOT INDUCE VOMITING WITHOUT MEDICAL ADVICE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DRINK 1 OR 2 GLASSES OF WATER. OBTAIN MEDICAL ATTENTION.
 MOST IMPORTANT SYMPTOMS AND SEE SECTION 11.
 EFFECTS, ACUTE OR DELAYED:
 INDICATION OF ANY IMMEDIATE MEDICAL N.A.V.
 ATTENTION AND SPECIAL TREATMENT
 NEEDED

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SECTION 05: FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA..... USE EXTINGUISHING MEASURES THAT ARE APPROPRIATE TO LOCAL CIRCUMSTANCES AND THE SURROUNDING ENVIRONMENT.
 UNSUITABLE EXTINGUISHING MEDIA..... N.AV.
 SPECIAL HAZARDS ARISING FROM THE PRODUCT: NOT COMBUSTIBLE. THERMAL DECOMPOSITION PRODUCTS: ALUMINIUM COMPOUNDS, SULPHUR OXIDES, HYDROGEN CHLORIDE (HCL).
 HAZARDOUS COMBUSTION PRODUCTS: SEE SPECIAL HAZARDS ARISING FROM THE PRODUCT ABOVE.
 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE SUIT. COOL CONTAINERS/TANKS WITH WATER SPRAY.

SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS..... WEAR PERSONAL PROTECTIVE EQUIPMENT.
 ENVIRONMENTAL PRECAUTIONS..... SHOULD NOT BE RELEASED INTO THE SOIL, SURFACE WATER OR GROUND WATER SYSTEM. MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL AND NATIONAL REGULATIONS.
 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP SMALL AMOUNTS: ABSORB WITH MATERIALS SUCH AS; CLAY. OR NEUTRALIZE WITH LIME OR SODA. COLLECT FOR SUBSEQUENT DISPOSAL. LARGE AMOUNTS: IN CASE OF LARGE SPILLAGE, CONTAIN BY DAMMING UP. COLLECT BY PUMP OR WITH SUITABLE INERT ABSORBENT MATERIAL. NEUTRALIZE WITH LIME OR SODA. FLUSH AWAY TRACES WITH WATER.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:..... AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH CONTACT AREAS AFTER HANDLING.
 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: STORE IN ORIGINAL CONTAINER. FOLLOW ALL SDS/LABEL PRECAUTIONS EVEN AFTER CONTAINER IS EMPTIED BECAUSE THEY MAY RETAIN PRODUCT RESIDUES. STORE IN CORROSIVE RESISTANT STAINLESS STEEL CONTAINER WITH A RESISTANT INNER LINER. PLASTIC WITH FIBERGLASS REINFORCEMENT OR PLASTIC KEEP CONTAINERS TIGHTLY CLOSED IN A COOL, WELL-VENTILATED PLACE. MATERIALS FOR PACKAGING SUITABLE MATERIAL: BUTYL-RUBBER, PLASTIC. MATERIALS TO AVOID: IRON, STEEL, METALS (INCLUDING THEIR ALLOYS). CORRODES BASE METALS, CARBON STEEL, ALUMINIUM, CARBON, BRASS, NYLON MINERAL ACIDS, BASES, ALKALINE MATERIALS.

SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL NIOSH
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ALUMINUM CHLORIDE HYDROXIDE SULFATE	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.
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APPROPRIATE ENGINEERING CONTROLS PROVIDE GENERAL AND/OR LOCAL EXHAUST VENTILATION. ENSURE ADEQUATE VENTILATION.

INDIVIDUAL PROTECTION MEASURE SUCH AS PERSONAL PROTECTIVE EQUIPMENTS:

HAND PROTECTION..... PVC AND NEOPRENE GLOVES. PLEASE OBSERVE THE INSTRUCTIONS REGARDING PERMEABILITY AND BREAKTHROUGH TIME WHICH ARE PROVIDED BY THE SUPPLIER OF THE GLOVES. ALSO TAKE INTO CONSIDERATION THE SPECIFIC LOCAL CONDITIONS UNDER WHICH THE PRODUCT IS USED, SUCH AS THE DANGER OF CUTS, ABRASION, AND THE CONTACT TIME. GLOVES SHOULD BE REMOVED AND REPLACED IMMEDIATELY IF THERE IS ANY INDICATION OF DEGRADATION OR CHEMICAL BREAKTHROUGH. BREAK THROUGH TIME: > 480 MIN.
 RESPIRATORY PROTECTION..... WHEN THERE IS POTENTIAL FOR AIRBORNE EXPOSURES IN EXCESS OF APPLICABLE LIMITS, WEAR NIOSH/MSHA APPROVED RESPIRATORY PROTECTION. TIGHTLY FITTING SAFETY GOGGLES OR FACE-SHIELD.
 EYE PROTECTION..... WEAR SUITABLE PROTECTIVE CLOTHING.
 PROTECTIVE CLOTHING..... PROTECTIVE FOOTWEAR.
 OTHER..... ENSURE ADEQUATE VENTILATION. ENSURE THAT EYEWASH STATIONS AND SAFETY SHOWERS ARE CLOSE TO THE WORKSTATION LOCATION.
 HYGIENIC PRACTICES..... USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, OR SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE CONTAMINATED CLOTHING AND WASH THOROUGHLY BEFORE REUSE.

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SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... LIQUID.
 COLOR..... CLEAR, AMBER, OR COLOURLESS.
 ODOUR..... SLIGHT.
 ODOUR THRESHOLD
 PH..... 2.1 - 3.1.
 FREEZING POINT..... -12 (C).
 BOILING POINT..... 102 (C).
 FLASH POINT (C), METHOD..... N.AP.
 EVAPORATION RATE..... N.AV.
 FLAMMABILITY (SOLIDS AND GASES)..... N.AV.
 UPPER FLAMMABLE LIMIT (% BY VOL.)... N.AP.
 LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AP.
 VAPOUR PRESSURE (MMHG)..... N.AV.
 VAPOUR DENSITY (AIR=1)..... 1.3.
 RELATIVE DENSITY..... 1.18 - 1.28.
 SOLUBILITY IN WATER (% W/W)..... COMPLETE.
 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:..... N.AV.
 CHEMICAL STABILITY:..... STABLE.
 POSSIBILITY OF HAZARDOUS HAZARDOUS POLYMERISATION DOES NOT OCCUR.
 REACTIONS:
 CONDITIONS TO AVOID..... AVOID EXTREME TEMPERATURES.
 INCOMPATIBLE MATERIALS:..... IRON, STEEL, METALS (INCLUDING THEIR ALLOYS). CORRODES BASE METALS, CARBON STEEL, ALUMINIUM, CARBON, BRASS, NYLON, MINERAL ACIDS BASES, ALKALINE MATERIALS.
 HAZARDOUS PRODUCTS OF SULPHUR OXIDES (SOX), ALUMINIUM OXIDE, HYDROGEN CHLORIDE GAS.
 DECOMPOSITION

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
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ALUMINUM CHLORIDE HYDROXIDE SULFATE	>5 MG/L (IHL RAT - 4H)	2,360 MG/KG (ORAL, RAT); 2,000 MG/KG (DERMAL, RAT)
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INFORMATION ON LIKELY ROUTES OF ENTRY:

SKIN CONTACT..... REPEATED OR PROLONGED SKIN CONTACT MAY CAUSE SKIN IRRITATION, DRY SKIN.
 SKIN ABSORPTION..... N.AV.
 EYE CONTACT..... MAY CAUSE IRREVERSIBLE EYE DAMAGE.
 INHALATION..... N.AV.
 INGESTION..... SEE LD50 INFORMATION.
 EFFECTS OF ACUTE EXPOSURE..... SEE ABOVE.
 EFFECTS OF CHRONIC EXPOSURE..... REPEATED OR PROLONGED SKIN CONTACT MAY CAUSE SKIN IRRITATION, DRY SKIN. MAY CAUSE IRREVERSIBLE EYE DAMAGE.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

CARCINOGENICITY OF MATERIAL..... ALUMINUM CHLORIDE HYDROXIDE SULFATE. IARC: NOT LISTED.
 TERATOGENICITY..... ALUMINIUM CHLORIDE HYDROXIDE SULFATE: ORAL/RAT/OECD TEST GUIDELINE 452: NOAEL: 1,075 MG/KG READ-ACROSS (ANALOGY) DID NOT SHOW MUTAGENIC OR TERATOGENIC EFFECTS IN ANIMAL EXPERIMENTS. CAS NO. 31142-56-0.
 MUTAGENICITY..... ALUMINIUM CHLORIDE HYDROXIDE SULFATE: AMES TEST / MUTAGENICITY (SALMONELLA TYPHIMURIUM - REVERSE MUTATION ASSAY)/WITH AND WITHOUT. RESULT: NEGATIVE. OECD TEST GUIDELINE 471. MUTAGENICITY. MICRONUCLEUS TEST / IN VITRO MAMMALIAN CELLS/WITH AND WITHOUT RESULT: NEGATIVE. OECD TEST GUIDELINE 487. REMARKS: READ-ACROSS (ANALOGY), 1327-41-9. LYMPHOMA/IN VITRO GENE MUTATION STUDY IN MAMMALIAN CELLS/WITH AND WITHOUT. RESULT: NEGATIVE OECD TEST GUIDELINE 476. REMARKS: READ-ACROSS (ANALOGY), 1327-41-9.
 REPRODUCTIVE EFFECTS..... ALUMINIUM CHLORIDE HYDROXIDE SULFATE: ORAL/RAT/FEMALE/REPRODUCTIVE EFFECTS/OECD TEST GUIDELINE 452: NOAEL: 3,225 MG/KG; NOAEL F1: REMARKS:

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SECTION 11: TOXICOLOGICAL INFORMATION

REPRODUCTIVE EFFECTS..... READ-ACROSS (ANALOGY) CAS-NO. 31142-56-0, NO KNOWN EFFECT. ORAL/RAT/MALE AND FEMALE/SCREENING TEST/OECD TEST GUIDELINE 422: NOAEL: 1,000 MG/KG; NOAEL F1: REMARKS: READ-ACROSS (ANALOGY) 1327-41-9 NO KNOWN EFFECT. NOT BELIEVED TO BE TOXIC FOR REPRODUCTION.

SENSITIZING CAPABILITY OF MATERIAL ALUMINIUM CHLORIDE HYDROXIDE SULFATE: GUINEA PIG/OECD TEST GUIDELINE 406 REMARKS: READ-ACROSS (ANALOGY) CAS-NO. 12042-91-0 NOT SENSITIZING.

SYNERGISTIC MATERIALS..... 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

UN NUMBER..... 3264.
 PROPER SHIPPING NAME..... CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ALUMINUM CHLORIDE HYDROXIDE SULFATE).
 TDG CLASSIFICATION..... 8.
 PACKING GROUP..... III.
 ENVIRONMENTAL HAZARDS ACCORDING TO THE INTERNATIONAL MARITIME DANGEROUS GOODS CODE AND THE UNITED NATIONS MODEL REGULATIONS: N.AV.
 SPECIAL PRECAUTIONS IN CONNECTION WITH TRANSPORT OR CONVEYANCE EITHER WITHIN OR OUTSIDE THE PREMISES: N.AV.

SECTION 15: REGULATORY INFORMATION

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

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 THEY ARE APPROPRIATE.

PREPARED BY..... REGULATORY AFFAIRS
 PREPARATION DATE..... APR 19/2017