

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

PRODUCT: LIQUID SHOCK CODE: MUR0050

SECTION 01: IDENTIFICATION

MUR0050 PRODUCT CODE..... PRODUCT IDENTIFIER..... LIQUID SHOCK OTHER MEANS OF IDENTIFICATION...... RECOMMENDED USE AND N.AV

RESTRICTIONS ON USE

SUPPLIER IDENTIFIER.....

WATER PURIFICATION, BLEACHING AGENT AND DISINFECTANT.

MURSATT CHEMICALS LIMITED 11 REGALCREST COURT WOODBRIDGE, ONTARIO CANADA

L4L 8P3

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

SECTION 02: HAZARD IDENTIFICATION





HAZARD CLASSIFICATION..... SKIN CORROSION - CATEGORY 1B. SERIOUS EYE DAMAGE - CATEGORY 1. ACUTE AQUATIC TOXICITY - CATEGORY 1.

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

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. H400 VERY TOXIC TO

AQUATIC LIFE

P264 WASH SKIN THOROUGHLY AFTER HANDLING. P273 AVOID RELEASE TO THE PRECAUTIONARY STATEMENT.....

ENVIRONMENT. P280 WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE PROTECTION. P301+P330+P331 IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE VOMITING. P303+P361+P353 IF ON SKIN (OR HAIR) REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE ŚKIN WITH WATER/SHOWER. 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

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. P363 WASH CONTAMINATED CONTINUE REUSE.

P391 COLLECT SPILLAGE. P405 STORE LOCKED UP. 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. %			

SODIUM HYPOCHLORITE 7681-52-9 7-13

SECTION 04: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

INHALATION.....

IF INHALED, REMOVE VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION ONLY IF BREATHING HAS STOPPED. DO NOT USE MOUTH-TO-MOUTH IF VICTIM

INGESTED OR INHALED THE SUBSTANCE. INDUCE ARTIFICIAL RESPIRATION WITH THE AID OF A POCKET MASK EQUIPPED WITH A ONE-WAY VALVE OR OTHER APPROPRIATE RESPIRATORY MEDICAL DEVICE. IF SYMPTOMS PERSIST, CALL A

PHYSICIAN.

REMOVE CONTAMINATED CLOTHING AND IMMEDIATELY FLUSH WITH RUNNING WATER FOR A MINIMUM OF 15 MINUTES. IF IRRITATION PERSISTS, REPEAT SKIN CONTACT.....

FLUSHING. DISCARD HEAVILY CONTAMINATED CLOTHING AND SHOES IN A MANNER WHICH LIMITS FURTHER EXPOSURE.OTHERWISE, WASH CLOTHING SEPARATELY BEFORE REUSE. CALL A PHYSICIAN IF IRRITATION DEVELOPS.

SECTION 04: FIRST AID MEASURES

IMMEDIATELY FLUSH WITH PLENTY OF RUNNING WATER, HOLDING EYELIDS EYE CONTACT.....

OPEN FOR A MINIMUM OF 15 MINUTES. IF IRRITATION PERSISTS, REPEAT FLUSHING. DO NOT TRANSPORT VICTIM UNTIL THE RECOMMENDED FLUSHING PERIOD IS COMPLETED UNLESS FLUSHING CAN BE CONTINUED DURING

TRANSPORT. CALL A PHYSICIAN IF IRRITATION PERSISTS

DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER, AND THEN DRINK ONE GLASS OF WATER. CALL A PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH IF VICTIM IS UNCONSCIOUS OR RAPIDLY LOSING CONSCIOUSNESS OR IS INGESTION.....

CONVULSING. IF SPONTANEOUS VOMITING OCCURS, HAVE VICTIM LEAN FORWARD WITH HEAD DOWN TO AVOID BREATHING IN OF VOMITUS, RINSE

MOUTH AND ADMINISTER MORE WATER.

MOST IMPORTANT SYMPTOMS AND EFFECTS, ACUTE OR DELAYED: SEE SECTION 11.

INDICATION OF ANY IMMEDIATE MEDICAL PROBABLE MUCOUS DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC

ATTENTION AND SPECIAL TREATMENT

NEEDED

SECTION 05: FIRE FIGHTING MEASURES

IF INVOLVED IN FIRE USE WATER, OR CARBON DIOXIDE. DO NOT USE MONO SUITABLE EXTINGUISHING MEDIA.....

SEE HAZARDOUS COMBUSTION PRODUCTS.

AMMONIUM PHOSPHATE (MAP) TYPE EXTINGUISHERS DIRECTLY ON THIS PRODUCT. FOR LARGE FIRES USE AN ALL PURPOSE TYPE AFFF ALCOHOL FOAM RESISTANT MEDIUM EXPANSION ACCORDING TO FOAM MANUFACTURER'S RECOMMENDED TECHNIQUES. THE FOAM SUPPLIER SHOULD BE CONSULTED FOR RECOMMENDATIONS REGARDING FOAM TYPES AND DELIVERY RATES FOR

SPECIFIC APPLICATIONS.

UNSUITABLE EXTINGUISHING MEDIA..

SPECIAL HAZARDS ARISING FROM THE **PRODUCT**

HAZARDOUS COMBUSTION PRODUCTS.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS:

CHLORINE

N.AV.

USE WATER TO COOL CONTAINERS EXPOSED TO FIRE. FULL PROTECTION EQUIPMENT INCLUDING A SELF-CONTAINED BREATHING APPARATUS SHOULD BE

WORN. REMOVE STORAGE VESSELS FROM FIRE ZONE IF POSSIBLE.

SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS.....

ENVIRONMENTAL PRECAUTIONS..... METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

RESTRICT ACCESS TO THE AFFECTED AREA, USE PERSONAL PROTECTIVE EQUIPMENT, KEEP PEOPLE AWAY AND UPWIND OF THE SPILL OR LEAK.

PREVENT PRODUCT FROM ENTERING WATERWAYS

DILUTE SMALL SPILLS WITH WATER AND ADD SODIUM SULFITE OR SODIUM METABISULPHITE. USE CLEAN NON-SPARKING TOOLS TO COLLECT MATERIAL AND PLACE IT INTO LOOSELY COVERED PLASTIC CONTAINERS FOR LATER DISPOSAL. FOR LARGE SPILLS CONTACT THE SUPPLIER. VAPOURS MAY BE SUPPRESSED BY USE OF A WATER FOG; RUN-OFF MUST BE CAPTURED FOR TREATMENT AND DISPOSAL. WILL FORM HAZARDOUS REACTION PRODUCTS.

SECTION 07: HANDLING AND STORAGE

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

KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME. KEEP CONTAINERS CLOSED WHEN NOT IN USE. KEEP AWAY FROM INCOMPATIBLES. AVOID GENERATING

MIST. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS RESIDUES. USE CORROSIVE-RESISTANT TRANSFER EQUIPMENT WHEN DISPENSING.

CONDITIONS FOR SAFE STORAGE,

INCLUDING ANY IMCOMPATIBILITES:

PERSONNEL USING THIS PRODUCT SHOULD BE TRAINED ON ITS HAZARDS. STORE PRODUCT AT -10 TO 30?C AND AWAY FROM SUNLIGHT OR HIGH TEMPERATURES IN A COOL, SHADED AREA. DO NOT STORE ABOVE 30?C AND KEEP FROM FREEZING. KEEP CONTAINER CLOSED WHEN NOT IN USE. VENT CAPS SHOULD BE CHECKED WITH FULL PERSONAL PROTECTION.

SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENTS	ACGI TWA	H TLV STEL	PEL	A PEL STEL	NIOSH REL
SODIUM HYPOCHLORITE	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.

SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS USE LOCAL EXHAUST VENTILATION TO MAINTAIN LEVELS BELOW THE PEL

VENTILATE STORAGE TANK OUTSIDE. LOCAL EXHAUST VENTILATION SHOULD BE APPLIED WHEREVER THERE IS AN INCIDENCE OF POINT SURFACE EMISSIONS OR DISPERSION OF REGULATED CONTAMINANTS IN THE WORK AREA. SMOKING SHOULD BE PROHIBITED IN AREAS IN WHICH SODIUM HYPOCHLORITE IS STORED

OR HANDLED.

INDIVIDUAL PROTECTION MEASURE SUCH AS PERSONAL PROTECTIVE

EQUIPMENTS:

HAND PROTECTION.... WEAR CHEMICAL OR RUBBER GLOVES.

RESPIRATORY PROTECTION..... NIOSH/MSHA APPROVED AIR-PURIFYING RESPIRATOR EQUIPPED WITH ACID MIST

CARTRIDGES FOR CONCENTRATIONS UP TO 10 TIMES THE TLV. USE A SUPPLIED AIR RESPIRATOR IF CONCENTRATIONS ARE HIGHER OR UNKNOWN.

EYE PROTECTION..... USE CHEMICAL SAFETY GOGGLES AND FACE-SHIELD WHEN THERE IS POTENTIAL

FOR EYE CONTACT.

RUBBER APRON, LAB COAT, RAIN JACKET, PANTS OR OVERALLS AS APPROPRIATE. PROTECTIVE CLOTHING.....

PROTECTIVE FOOTWEAR...... NEOPRENE OR RUBBER BOOTS.

OTHER...... EYEWASH STATION AND SAFETY SHOWER SHOULD BE MADE AVAILABLE IN THE

IMMEDIATE WORKING AREA. USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, HYGIENIC PRACTICES.....

DRINKING, OR SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE

CONTAMINATED CLOTHING AND WASH THOROUGHLY BEFORE REUSE.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... LIGUID COLOR...... GREENISH-YELLOW SOLUTION. ODOUR...... CHLORINE LIKE, PUNGENT. ODOUR THRESHOLD..... N.AV. PH 12 - 14. BOILING POINT..... DECOMPOSES ON HEATING. FLASH POINT (C), METHOD..... NONE. EVAPORATION RATE..... N.AV. FLAMMABILITY (SOLIDS AND GASES)...... UPPER FLAMMABLE LIMIT (% BY VOL.)... LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AV. N.AP. N.AP VAPOUR PRESSURE (MMHĠ)..... 20. (@ 20 C). COEFFICIENT OF WATER/OIL DIST......AUTO IGNITION TEMPERATURE..... N.AV. N.AV. DECOMPOSITION TEMPERATURE..... N.AV. VISCOSITY..... N.AV.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:.... STABLE AT ROOM TEMPERATURE. UNSTABLE ABOVE 40 C, SUNLIGHT AND

CONTACT WITH METALS.

CHEMICAL STABILITY:.... STABLE AT ROOM TEMPERATURE

MAY DEVELOP CHLORINE IF MIXED WITH ACIDIC SOLUTIONS. POSSIBILITY OF HAZARDOUS

REACTIONS

CONDITIONS TO AVOID....... KEEP AWAY FROM HIGH HEAT AND SUNLIGHT OR ULTRA-VIOLENT LIGHT. DO NOT STORE ABOVE 30?C. DO NOT ALLOW SOLUTIONS TO EVAPORATE DRY. KEEP

AWAY FROM INCOMPATIBLES.

MAY REACT VIOLENTLY WITH STRONG ACIDS PRODUCING CHLORINE GAS, INCOMPATIBLE MATERIALS:....

WHICH IS TOXIC. OTHER INCOMPATIBLES INCLUDE ORGANIC MATERIAL, CELLULOSE, OXIDIZABLE MATERIALS, AMMONIA, UREA, AMMONIUM SALTS, ETHYLENEIMINE, CYANIDES, NITROGEN COMPOUNDS, ALCOHOLS, METALS, AND METAL OXIDES. REACTS WITH METALS TO PRODUCE FLAMMABLE HYDROGEN

GAS. CHLORINE GAS. THERMAL DECOMPOSITION: CHLORINE, SODIUM OXIDE, HAZARDOUS PRODUCTS OF

DECOMPOSITION OXYGEN, OXIDES OF CHLORINE, SODIUM CHLORATE AND HYDROGEN.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS LC50 LD50

SODIUM HYPOCHLORITE N.AV. 3-5 G/KG (ORAL, RAT)

INFORMATION ON LIKELY ROUTES OF

EYE CONTACT.....

ENTRY:

INHALATION..... MIST CAN IRRITATE THE NOSE AND THROAT. FUMES MAY IRRITATE MUCOUS

MEMBRANES AND CAUSE COUGHING OR PULMONARY EDEMA. EXPOSURE TO HIGH LEVELS OF CHLORINE GAS MAY RESULT IN SEVERE LUNG DAMAGE

SKIN CONTACT..... WILL CAUSE MODERATE IRRITATION TO SKIN. CAN CAUSE BURNS AND BLISTERS.

PROLONGED REPEATED SKIN CONTACT WITH SOLUTIONS CONTAINING AS SKIN ABSORPTION.....

LITTLE AS 4-6% SODIUM HYPOCHLORITE CAN CAUSE ALLERGIC CONTACT

DERMATITIS. SYMPTOMS INCLUDE CHRONIC, ITCHY ECZEMA. CAN CAUSE IRRITATION, SEVERE BURNS AND CORNEAL DAMAGE, WHICH MAY

RESULT IN BLINDNESS

INGESTION..... IF INGESTED, PRODUCT WILL CAUSE MEMBRANE IRRITATION AND PAIN AND

INFLAMMATION TO DIGESTIVE TRACT. COULD CAUSE VOMITING AND SHOCK. HYPOCHLORITE SOLUTIONS RELEASE HYPOCHLOROUS ACID ON CONTACT WITH GASTRIC JUICES, AND INGESTION MAY ALSO CAUSE EDEMA OF THE PHARYNX AND LARYNX; REDUCED BLOOD PRESSURE, DELIRIUM AND COMA MAY OCCUR.

SEE ABOVE

EFFECTS OF ACUTE EXPOSURE..... EFFECTS OF CHRONIC EXPOSURE...... PROLONGED OR REPEATED CONTACT WITH DILUTE SOLUTIONS MAY BLEACH

SKIN OR CAUSE DERMATITIS.

SIGNS AND SYMPTOMS OF

OVEREXPOSURE

CARCINOGENICITY OF MATERIAL...... IARC: NOT LISTED.

TERATOGENICITY..... N.AV. MUTAGENICITY..... N.AV. N.AV.

REPRODUCTIVE EFFECTS..... SENSITIZING CAPABILITY OF MATERIAL N.AV.

SYNERGISTIC MATERIALS...... N.AV.

SECTION 12: ECOLOGICAL CONSIDERATIONS

ECOTOXICITY...... N.AV. PERSISTENCE AND DEGRADATION...... N.AV. BIOACCUMULATIVE POTENTIAL..... N AV 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...... 1791.

PROPER SHIPPING NAME...... HYPOCHLORITE SOLUTIONS.

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.....PREPARATION DATE..... **REGULATORY AFFAIRS**

JAN 1/2024