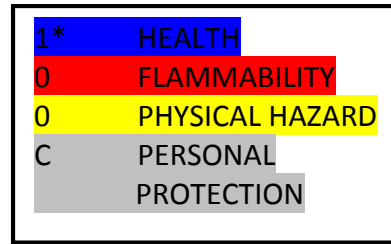


Martronics Corporation
PO Box 200 Salkum, WA 98582
Tel. 360-985-2999



SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER

BLACK OXIDE ELECTROLYTE

PRODUCT USE

ELECTROLYTIC / ELECTROCHEMICAL METAL INSCRIPTION

MANUFACTURER'S NAME

MARTRONICS CORPORATION

STREET ADDRESS

500 WILCOX RD

CITY

STATE

SALKUM

POSTAL CODE 98582

WA

EMERGENCY TELEPHONE 1-800-775-0797

DATE MSDS PREPARED

01-Dec.-18

MSDS PREPARED BY

BRETA FAUSSETT

PHONE NUMBER

360-985-2999

SECTION 2 - HAZARDOUS IDENTIFICATION

2.1 Classification of substance or Mixture: Not Classified

SIGNAL WORD: WARNING



2.2 Labeling Elements **WARNING**

2.3 Other Hazards listed below

H316 MAY CAUSE SKIN IRRITATION

H320 MAY CAUSE EYE IRRITATION

H413: HARMFUL TO AQUATIC ORGANISMS, MAY
CAUSE LONG TERM ADVERSE EFFECT IN THE
AQUATIC ENVIRONMENT

EMERGENCY OVERVIEW

ACUTE EXPOSURE MAY CAUSE IRRITATION TO SKIN, EYES AND RESPIRATORY SYSTEM. ORAL TOXICITY OF COMPONENTS IS LOW TO MODERATE.

2.4 Precautionary Statements:

Prevention: P280 - Wear protective gloves. Wear eye or face protection P264 - Wash hands thoroughly after handling

Response: P302+P352 + P362-2+ P363 IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	%
CALCIUM CHLORIDE	10043.52-4	1-5
SODIUM CHLORIDE	7647-14-5	1-5
CITRIC ACID	77-92-9	1-5
COBALT CHLORIDE	7791-13-1	1-5

EXACT PERCENTAGE (CONCENTRATION) OF THE COMPOSITION HAS BEEN WITHHELD AS A TRADE SECRET IN ACCORDANCE WITH 29 CFR 1910.1200 OR IS DUE TO BATCH VARIATION. THERE ARE NO ADDITIONAL INGREDIENTS PRESENT WHICH, WITHIN THE CURRENT KNOWLEDGE OF THE SUPPLIER AND IN THE CONCENTRATIONS APPLICABLE, ARE CLASSIFIED AS HAZARDOUS TO HEALTH OR THE ENVIRONMENT AND HENCE REQUIRE REPORTING IN THIS SECTION.

SECTION 4 - FIRST AID MEASURES

SKIN CONTACT

IN CASE OF CONTACT IMMEDIATELY FLUSH WITH WATER. CALL A PHYSICIAN IF IRRITATION CONTINUES.

EYE CONTACT

FLUSH WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS APART. CALL A PHYSICIAN IF IRRITATION CONTINUES.

INHALATION

SEEK FRESH AIR.

INGESTION

IF SWALLOWED, IF CONSCIOUS, IMMEDIATELY GIVE LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE	IF YES, UNDER WHAT CONDITIONS?	
YES	NO X	NOT APPLICABLE
FLASHPOINT °(C) AND METHOD	UPPER FLAMMABLE LIMIT (% BY VOLUME)	LOWER FLAMMABLE LIMIT (% BY VOLUME)
NON COMBUSTIBLE	NOT AVAILABLE	NOT AVAILABLE
AUTOIGNITION TEMPERATURE	EXPLOSION DATA - SENSITIVITY TO IMPACT	EXPLOSION DATA - SENSITIVITY TO STATIC DISCHARGE
NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
HAZARDOUS COMBUSITION PRODUCTS		
TOXIC GASES MAY BE PRODUCED.		

SECTION 6 - ACCIDENTAL RELEASE MEASURES

LEAK AND SPILL PROCEDURE
WEAR SUITABLE PROTECTIVE CLOTHING. ABSORB WITH VERMICULITE, PAPER, ETC. AND REMOVE. FLUSH AREA WITH WATER.

SECTION 7 – HANDLING AND STORAGE

HANDLING PROCEDURES AND EQUIPMENT
AVOID CONTACT WITH THE SKIN. WEAR PROPER PROTECTIVE EQUIPMENT. DO NOT BREATHE VAPOR / AEROSOL.
STORAGE REQUIREMENTS
KEEP CONTAINER CLOSED TO AVOID EVAPORATION. KEEP FROM FREEZING. STORE IN COOL DRY PLACE, OUT OF DIRECT SUNLIGHT.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

EXPOSURE LIMITS

NONE

SPECIFIC ENGINEERING CONTROLS

LOCAL EXHAUST

PERSONAL PROTECTIVE EQUIPMENT

GLOVES X	RESPIRATOR	EYE X	FOOTWEAR	CLOTHING X	OTHER
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IF CHECKED, PLEASE SPECIFY TYPE

NEOPRENE GLOVES AND UNIFORM OR APRON ARE RECOMMENDED. SAFETY GLASSES OR GOGGLES. SAFETY SHOWER / EYE WASH.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	APPEARANCE	ODOR
LIQUID	CLEAR	SLIGHT
SPECIFIC GRAVITY	VAPOR DENSITY	VAPOR PRESSURE
1.054	NOT AVAILABLE	NOT AVAILABLE
EVAPORATION RATE	BOILING POINT	FREEZING POINT
NOT AVAILABLE	UNKOWN: > 100°C	NOT AVAILABLE
PH	COEFFICENT OF WATER/OIL DISTRIBUTION	SOLUBILITY IN WATER
NOT AVAILABLE	NOT AVAILABLE	MISCIBLE

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY	IF NO, UNDER WHAT CONDITIONS?
STABLE	NOT APPLICABLE
INCOMPATIBILITY WITH OTHER SUBSTANCES	IF YES, WHICH ONES?
YES	AVOID CONTACT WITH STRONG MINERAL ACIDS.
REACTIVITY, AND UNDER WHAT CONDITIONS?	
NOT APPLICABLE	
HAZARDOUS DECOMPOSITION PRODUCTS	
NONE	

SECTION 11 - TOXICOLOGICAL INFORMATION

EFFECTS OF ACUTE EXPOSURE

IRRITATION OF EYES, SKIN AND RESPIRATORY SYSTEM.

EFFECTS OF CHRONIC EXPOSURE

NONE

SKIN SENSITIZATION

NO DATA AVAILABLE

RESPIRATORY SENSITIZATION

NO DATA AVAILABLE

CARCINOGENICITY - IARC

NO DATA AVAILABLE

CARCINOGENICITY - ACGIH

NO DATA AVAILABLE

REPRODUCTIVE TOXICITY

NO DATA AVAILABLE

TERATOGENICITY

NO DATA AVAILABLE

EMBRYOTOXICITY

NO DATA AVAILABLE

MUTAGENICITY

NO DATA AVAILABLE

NAME OF SYNERGISTIC PRODUCTS/EFFECTS

NO DATA AVAILABLE

SECTION 12 - ECOLOGICAL INFORMATION

AQUATIC TOXICITY

MARTRONICS CORPORATION HAS NOT CONDUCTED SPECIFIC STUDIES ON THE ECOLOGICAL TOXICITY OR ENVIRONMENTAL FATE OF THIS PRODUCT.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14 - TRANSPORT INFORMATION

SPECIAL SHIPPING INFORMATION

NONE

TDG

NOT APPLICABLE

IMO

NOT APPLICABLE

PIN

NOT APPLICABLE

DOT

NOT APPLICABLE

ICAO

NOT APPLICABLE

SECTION 15 - REGULATORY INFORMATION

WHMIS CLASSIFICATION

NOT APPLICABLE

SERA

NOT APPLICABLE

OSHA

YES, BUT ONLY AS DRY COMPONENT

TSCA

NOT APPLICABLE

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH ALL THE HAZARD CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS (CPR) AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY CPR.

SECTION 16 - OTHER INFORMATION

MARTRONICS CORPORATION. RECOMMENDS THAT ALL EMPLOYERS DEVELOP, IMPLEMENT, AND TRAIN ALL EMPLOYEES IN PROPER WORKPLACE SAFETY PROCEDURES AND PRACTICES CONTAINED IN OSHA 29 CFR PART 1910 (OCCUPATIONAL SAFETY AND HEALTH STANDARDS)