



SAFETY DATA SHEET (S.D.S.)



1. IDENTIFICATION

SUPPLIER'S NAME:	ADENA TECHNOLOGIES	REGULAR TELEPHONE NO: EMERGENCY TELEPHONE NO (ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT INVOLVING CHEMICALS)	888-247-2312 800-255-3924
ADDRESS:	101 TECHNOLOGY LANE, EXPORT, PA 15632		
PRODUCT NUMBER:	AD6112		
PRODUCT NAME:	ADENA 6112		
SYNONYMS:	SODIUM BROMIDE SOLUTION		
RECOMMENDED USE	M-92L IS A MICROBIAL ADJUNCT USED IN THE TREATMENT OF INDUSTRIAL COOLING WATERS.		
RESTRICTIONS ON USE	NOT FOR USE WHERE THE TREATED WATER MAY CONTACT FOOD		

2. HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION	NON-HAZARDOUS LIQUID	SIGNAL WORD	WARNING
HAZARD STATEMENT	IRRITATING TO EYES		
ROUTES OF EXPOSURE	HAZARD CLASSIFICATION		
INHALATION:	IRRITANT		
SKIN CONTACT:	NON-IRRITANT. NOT A SKIN SENSITIZER.		
SKIN ABSORPTION:	NON-IRRITANT. NOT A SKIN SENSITIZER.		
EYE CONTACT:	IRRITANT		
INGESTION:	IRRITANT		
PRECAUTIONARY STATEMENTS	USE GOOD INDUSTRIAL HYGIENE.		
HAZARDS NOT OTHERWISE SPECIFIED	NONE KNOWN		

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT NAME	COMMON NAME/SYNONYM	CAS NO.	CONCENTRATION %	HAZARD DATA
SODIUM BROMIDE	NA	7647-15-6	30-60	INGESTION HAZARD
WATER	NA	7732-18-5	BALANCE	N/A

4. FIRST-AID MEASURES

EFFECTS OF OVEREXPOSURE	
ACUTE OVEREXPOSURE:	EYE CONTACT: SLIGHT, NON-PERSISTENT IRRITATION. SKIN: SLIGHT IRRITANT, ON PROLONGED CONTACT, TO ABRADED SKIN. SKIN ABSORPTION: NONE VIA INTACT SKIN. INGESTION: MAY PRODUCE DEPRESSION, SEDATION AND CONFUSION. AFTER PROLONGED EXPOSURE, MAY PRODUCE NON-PERSISTENT ACNE-LIKE SKIN RASH.
CHRONIC OVEREXPOSURE:	REPEATED INGESTION MAY CAUSE BROMISM: EMACIATION, DEPRESSION, MENTAL DETERIORATION, WITH ACNE-OR FURUNCULOSIS-LIKE SKIN RASH.
ROUTE OF EXPOSURE:	FIRST AID PROCEDURES
EYES:	IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES HOLDING THE EYELIDS APART. GET IMMEDIATE MEDICAL ATTENTION IF IRRITATION PERSISTS.
SKIN:	IMMEDIATELY REMOVE CONTAMINATED CLOTHING. RINSE IMMEDIATELY WITH PLENTY OF WATER. CONTINUE TO RINSE FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION IF IRRITATION PERSISTS AFTER WASHING.
INHALATION:	PROVIDE FRESH AIR, WARMTH AND REST, PREFERABLY IN A COMFORTABLE UPRIGHT SITTING POSITION. GET MEDICAL ATTENTION IF ANY DISCOMFORT CONTINUES.
INGESTION:	DO NOT INDUCE VOMITING. IF VOMITING OCCURS, THE HEAD SHOULD BE KEPT LOW SO THAT STOMACH VOMIT DOESN'T ENTER THE LUNGS. RINSE MOUTH THOROUGHLY. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS. GET MEDICAL ATTENTION IF ANY DISCOMFORT CONTINUES.
NOTES TO PHYSICIAN:	N/A

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5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING EQUIPMENT/MEDIA	WATER SPRAY, FOG OR MIST. CARBON DIOXIDE (CO ₂) (NOT FLAMMABLE)
UNSUITABLE EXTINGUISHING EQUIPMENT/MEDIA	N/A
SPECIAL FIRE FIGHTING PROCEDURES:	USE SCBA IF PRODUCT IS INVOLVED IN A FIRE
UNUSUAL FIRE AND EXPLOSION HAZARD:	NO UNUSUAL FIRE OR EXPLOSION HAZARDS NOTED. THIS MATERIAL WILL NOT BURN UNTIL THE WATER HAS EVAPORATED. RESIDUE CAN BURN. FIRE OR HIGH TEMPERATURES CREATE: TOXIC GASES/VAPORS/FUMES OF: BROMINE. HYDROGEN BROMIDE (HBR).
SPECIAL INFORMATION FOR FIRE FIREFIGHTERS	MOVE CONTAINER FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. COOL CONTAINERS EXPOSED TO FLAMES WITH WATER UNTIL WELL AFTER THE FIRE IS OUT. KEEP RUN-OFF WATER OUT OF SEWERS AND WATER SOURCES. DIKE FOR WATER CONTROL.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	WEAR PROTECTIVE CLOTHING AS DESCRIBED IN SECTION 8 OF THIS SAFETY DATA SHEET.
REQUIRED PROTECTIVE EQUIPMENT:	SEE SECTION 8
EMERGENCY PROCEDURES:	SPILLS AND RELEASES MAY HAVE TO BE REPORTED TO FEDERAL AND/OR LOCAL AUTHORITIES. SEE SECTION 15 REGARDING REPORTING REQUIREMENTS.
CONTAINMENT-METHODS AND MATERIALS:	SEE BELOW
CLEANUP PROCEDURES:	COLLECT FOR RECLAMATION OR ABSORB IN VERMICULITE, DRY SAND OR SIMILAR MATERIAL. COLLECT IN CONTAINERS AND SEAL SECURELY. SHOULD BE PREVENTED FROM ENTERING DRAINS. DISPOSE OF ALL MATERIAL IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS.
NEUTRALIZING CHEMICALS:	N/A

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

INCOMPATIBLE CHEMICALS:	STRONG ACIDS AND REDUCING AGENTS
GENERAL HYGIENE PRACTICES:	STANDARD INDUSTRIAL HYGIENE PRACTICES.
SPECIAL HANDLING INSTRUCTIONS:	AVOID SPILLING, SKIN AND EYE CONTACT.
SPECIAL STORAGE INSTRUCTIONS:	PROTECT FROM LIGHT, INCLUDING DIRECT SUNRAYS. STORE IN TIGHTLY CLOSED ORIGINAL CONTAINER IN A DRY, COOL AND WELL-VENTILATED PLACE.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA PELs:	NO DATA	ACGIH TLVs:	NO DATA	OTHER EXPOSURE LIMITS:	NO DATA
VENTILATION REQUIREMENTS		MECHANICAL VENTILATION.			
OTHER ENGINEERING CONTROLS:		NONE			
PERSONAL PROTECTIVE MEASURES:		SAFETY GLASSES AND IMPERVIOUS GLOVES AS A MINIMUM..			
SPECIFIC PERSONAL PROTECTIVE EQUIPMENT:					
EYE:		WEAR SAFETY GOGGLES AND FULL FACE SHIELD WHERE SPLASHING IS POSSIBLE			
SKIN:		USE IMPERVIOUS GLOVES (E.G. HEAVY DUTY PVC, RUBBER, OR SIMILAR TYPE) FOR ROUTINE HANDLING OR DIRECT CONTACT. WEAR LONG SLEEVED SHIRT AND PANTS. IMPERVIOUS WORK APRONS OR COVERALLS AND BOOTS AS NEEDED TO PREVENT CONTACT.			
OTHER CLOTHING/EQUIPMENT:		SAFETY SHOWER AND EYEWASH FOUNTAIN SHOULD BE LOCATED IN THE IMMEDIATE WORK AREA.			

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	CLEAR TO YELLOW LIQUID	FLAMMABILITY/EXPLOSIVE LIMITS IN AIR, % BY VOLUME:	UPPER	N/A	LOWER:	N/A
SPECIFIC GRAVITY (H ₂ O =1):	1.39	% VOLATILES BY VOL:	NE (NOT ESTABLISHED)	FLASH POINT: (TEST METHOD)	N/A	
ODOR:	ODORLESS	PH (AS IS):	6-8	VAPOR PRESSURE:	10 MM HG @ 77°F	
ODOR THRESHOLD	NO DATA	PH (1% SOLN.):	6-8	VAPOR DENSITY (AIR = 1):	N/A	
MELTING POINT, °F:	N/A	FREEZING POINT	40°F	RELATIVE DENSITY	1.43 @ 69.8 °F	
SOLUBILITY IN H ₂ O % BY WT:	MISCIBLE WITH WATER	INITIAL BOILING POINT, 760 MM HG, °F:	233°F	BOILING RANGE	233°F	
EVAPORATION RATE (BUTYL ACETATE = 1):	NO DATA	DECOMPOSITION TEMPERATURE	1472°F	VISCOSITY	NO DATA	
PARTITION COEFFICIENT: N-OCTANOL/WATER	NO DATA	AUTOIGNITION TEMPERATURE:	N/A			

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10. STABILITY AND REACTIVITY

REACTIVITY

DESCRIPTION OF SPECIFIC TEST DATA	NO SPECIFIC DATA
CHEMICAL STABILITY	
IS PRODUCT STABLE UNDER NORMAL AMBIENT TEMPERATURE AND CONDITIONS WHILE IN STORAGE AND BEING HANDLED?	YES
CONDITIONS CONTRIBUTING TO INSTABILITY:	NONE
STABILIZERS NEEDED TO MAINTAIN STABILITY:	N/A
SAFETY ISSUES IN THE EVENT OF CHANGE IN PHYSICAL APPEARANCE OF PRODUCT:	N/A
OTHER	
POSSIBLE HAZARDOUS REACTIONS:	NONE KNOWN
CONDITIONS CONTRIBUTING TO HAZARDOUS REACTIONS:	NONE KNOWN
CONDITIONS THAT SHOULD BE AVOIDED:	AVOID CONTACT WITH STRONG REDUCING AGENTS. AVOID CONTACT WITH ACIDS.
INCOMPATIBLE MATERIALS:	STRONG ACIDS. STRONG REDUCING AGENTS.
HAZARDOUS DECOMPOSITION PRODUCTS:	TOXIC GASES/VAPORS/FUMES OF: BROMINE. HYDROGEN BROMIDE (HBR).
CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:	NONE KNOWN

11. TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE	
INHALATION:	IRRITANT
SKIN CONTACT:	NON-IRRITANT. NOT A SKIN SENSITIZER.
EYE CONTACT:	IRRITANT
INGESTION:	IRRITANT
THIS SECTION CONTINUED ON FOLLOWING PAGE	

EFFECTS OF EXPOSURE:

(DELAYED, IMMEDIATE AND/OR CHRONIC)

SHORT-TERM EXPOSURE		MAY CAUSE IRRITATION TO THE RESPIRATORY SYSTEM. MAY CAUSE DISCOMFORT IF SWALLOWED. MAY CAUSE STOMACH PAIN OR VOMITING. IRRITATING TO EYES.	
LONG-TERM EXPOSURE		NO DATA	
NUMERICAL MEASURE OF TOXICITY:		TOXIC DOSE 1 - LD 50 >5000 MG/KG (ORAL RAT) TOXIC DOSE 2 - LD 50 >2000 MG/KG (SKIN RABBIT)	
SYMPTOMS ASSOCIATED WITH EXPOSURE: (FROM LOWEST TO MOST SEVERE)		NO DATA	
NTP:	IS THIS PRODUCT OR ANY OF ITS INGREDIENTS LISTED IN THE LATEST EDITION OF THE NATIONAL TOXICOLOGY PROGRAM REPORT ON CARCINOGENS?		NO
IARC:	IS THIS PRODUCT OR ANY OF ITS INGREDIENTS LISTED IN THE LATEST EDITION OF THE INTERNATIONAL AGENCY FOR THE RESEARCH ON CANCER MONOGRAPHS?		NO
OSHA:	IS THIS PRODUCT OR ANY OF ITS INGREDIENTS FOUND TO BE A POTENTIAL CARCINOGEN BY OSHA?		NO

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY (E.G. 96 HR. TLM):	LC 50, 96 HRS, FISH MG/L 16479 EC 50, 48 HRS, DAPHNIA, MG/L 5800
IS THERE POTENTIAL FOR PRODUCT TO PERSIST AND DEGRADE IN THE ENVIRONMENT EITHER THROUGH BIODEGRADATION OR OTHER PROCESSES?	NOT KNOWN
RESULTS OF TESTS OF BIOACCUMULATION POTENTIAL: (REFERENCE KOW AND BCF)	NO DATA
IS THERE POTENTIAL FOR PRODUCT TO MOVE FROM SOIL TO GROUNDWATER?	NOT KNOWN
RESULTS FROM ADSORPTION STUDIES OR LEACHING STUDIES:	NO DATA
OTHER ADVERSE ECOLOGICAL EFFECTS:	NONE KNOWN



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13. DISPOSAL CONSIDERATIONS

APPROPRIATE DISPOSAL CONTAINERS::	SHIPPING CONTAINER
APPROPRIATE DISPOSAL METHODS:	DISPOSE OF CONTAINER AND UNUSED CONTENTS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.
PHYSICAL PROPERTIES THAT MAY AFFECT DISPOSAL ACTIVITIES	NONE KNOWN
CHEMICAL PROPERTIES THAT MAY AFFECT DISPOSAL ACTIVITIES	NONE KNOWN
SPECIAL PRECAUTIONS	NONE KNOWN
DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. ALL DISPOSAL PRACTICES MUST BE IN COMPLIANCE WITH ALL FEDERAL, STATE/PROVINCIAL AND LOCAL LAWS AND REGULATIONS. REGULATIONS MAY VARY IN DIFFERENT LOCATIONS. WASTE CHARACTERIZATIONS AND COMPLIANCE WITH APPLICABLE LAWS ARE THE RESPONSIBILITY SOLELY OF THE WASTE GENERATOR.	

14. TRANSPORT INFORMATION

SHIPPING NAME, DOT:	NON-HAZARDOUS BY DOT STANDARDS
SHIPPING NAME, IATA:	N/A (NOT APPLICABLE)
SPECIAL PRECAUTIONS:	NONE KNOWN
<i>THIS INFORMATION IS NOT INTENDED TO CONVEY ALL SPECIFIC REGULATORY OR OPERATIONAL REQUIREMENTS/INFORMATION RELATING TO THIS PRODUCT. ADDITIONAL TRANSPORTATION SYSTEM INFORMATION CAN BE OBTAINED THROUGH AN AUTHORIZED SALES OR CUSTOMER SERVICE REPRESENTATIVE. IT IS THE RESPONSIBILITY OF THE TRANSPORTING ORGANIZATION TO FOLLOW ALL APPLICABLE LAWS, REGULATIONS AND RULES RELATING TO THE TRANSPORTATION OF THE MATERIAL.</i>	

15. REGULATORY INFORMATION

FEDERAL FDA:	NONE	
EPA:	SARA-SECTION 302 (EXTREMELY HAZARDOUS SUBSTANCE LIST): (YES OR NO)	NO
	SARA-SECTION 311/312 (HAZARDOUS CATEGORIES):	ACUTE HEALTH
	SARA-SECTION 313 (TOXIC CHEMICAL LIST): (YES OR NO)	NO
TSCA:	IS THIS PRODUCT, OR ALL ITS INGREDIENTS; BEING CERTIFIED FOR INCLUSION IN THE TOXIC SUBSTANCES CONTROL ACT INVENTORY OF CHEMICAL SUBSTANCES?	ALL COMPONENTS ARE LISTED ON TSCA LIST
OSHA:	NONE	
OTHER:	NONE	
STATE:	NONE	
ADDITIONAL REGULATORY CONCERNS:	NONE	

16. OTHER INFORMATION

PREPARED BY:	DEAN NORWOOD
TITLE:	CHEMIST
COMPANY:	BROWNE LABORATORIES, INC.
ADDRESS:	4138 S. CREEK ROAD, CHATTANOOGA, TN 37406
REVISION DATE:	6/18/13

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