HAZARD RATING	
HEALTH	3
FLAMMABILITY	0
REACTIVITY	2
SPECIAL NOTICE	W

TELEDYNE BATTERY PRODUCTS
Everywhereyoulook™

TELEDYNE BATTERY PRODUCTS
MATERIAL SAFETY DATA SHEET
BATTERY FLUID (ELECTROLYTE)

SECTION 1: CHEMICAL PRODUCT & COMPANY INFORMATION

MANUFACTURER'S NAME:	TELEDYNE BATTERY PRODUCTS
ADDRESS:	840 WEST BROCKTON AVENUE REDLANDS, CA 92374
TELEPHONE:	909-793-3131
24-HOUR EMERGENCY CONTACT:	INFOTRAC 1-800-535-5053, CUSTOMER ID: 78604
PRODUCT NAME:	BATTERY FLUID (ELECTROLYTE)
TRADE NAME:	BATTERY ELECTROLYTE, VARIOUS GRADES
SYNONYMS:	SULFURIC ACID
FORMULA:	H_2SO_4
INTENDED USE:	ELECTROLYTE FOR LEAD-ACID BATTERIES

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

MATERIAL OR COMPONENT	CAS #	SPECIFIC GRAVITY (SG)	% H2SO4	% WATER	OSHA PEL	ACGIH TLV	OSHA ACTION LEVEL
SULFURIC ACID (ELECTROLYTE)	7664-93-9	1.220	30	70	1 mg/m^3	1 mg/m^3	Not Applicable
SULFURIC ACID (ELECTROLYTE)	7664-93-9	1.285	38	62	1 mg/m^3	1 mg/m^3	Not Applicable
SULFURIC ACID (ELECTROLYTE)	7664-93-9	1.320	42	58	1 mg/m^3	1 mg/m^3	Not Applicable

SECTION 3: HAZARD IDENTIFICATION

ROUTES OF EXPOSURE	
INHALATION	INHALATION OF ELECTROLYTE CAN CAUSE BURNS IN THE UPPER RESPIRATORY TRACT. LUNG IRRITATION AND PULMONARY EDEMA MAY OCCUR.
SKIN CONTACT	ELECTROLYTE MAY CAUSE BURNS OR LOCALIZED IRRITATION.
EYE CONTACT	ELECTROLYTE MAY CAUSE IRRITATION, CORNEAL BURNS AND CONJUNCTIVITIS. BLINDNESS OR SEVERE OR PERMANENT INJURY MAY RESULT.
INGESTION	ELECTROLYTE MAY CAUSE BURNS TO THE MOUTH, ESOPHAGUS AND STOMACH.

CARCINOGENICITY	IARC	NTP	OSHA
LEAD	X		X
SULFURIC ACID	X		X
ARSENIC	X	X	X

SECTION 4: FIRST AID MEASURES

EYES	WASH IMMEDIATELY WITH LARGE AMOUNTS OF WATER, LIFTING THE LOWER AND UPPER LIDS CONTINUOUSLY. GET MEDICAL ATTENTION.
SKIN	IMMEDIATELY FLUSH THE EXPOSED AREA OF THE SKIN WITH LARGE AMOUNTS OF WATER. REMOVE ANY CONTAMINATED CLOTHING AND SHOES (THIS CAN BE DONE WHILE UNDER SHOWER). GET MEDICAL ATTENTION.
INHALATION	REMOVE EMPLOYEE FROM AREA OF EXPOSURE TO FRESH AIR. IF PERSON IS NOT BREATHING AND HAS NO PULSE, PERFORM CPR. KEEP VICTIM WARM AND AT REST. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET IMMEDIATE MEDICAL ATTENTION.
INGESTION	GIVE EMPLOYEE LARGE AMOUNTS OF WATER IF CONSCIOUS. DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT	N/A
AUTO IGNITION TEMPERATURE	N/A
FLAMMABLE LIMITS IN AIR (% BY VOL)	N/A
EXTINGUISHING MEDIA	USE DRY CHEMICAL OR CO2 EXTINGUISHER FOR SMALL FIRES. WATER FOG FOR LARGE FIRES
SPECIAL FIRE FIGHTING PROCEDURES	N/A

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILLED OR RELEASED	ELECTROLYTE SHOULD BE ABSORBED WITH A NON-ORGANIC TYPE ABSORBENT SUCH AS DRY SAND OR EARTH. AVOID DILUTION WITH WATER.
NEUTRALIZING CHEMICALS	USE SODA ASH OR BAKING SODA TO NEUTRALIZE THE ELECTROLYTE.

SECTION 7: HANDLING AND STORAGE

BATTERY CHARGING AREAS MUST BE ADEQUATELY VENTILATED TO KEEP VAPOR AND MIST CONCENTRATIONS BELOW EXPOSURE LIMITS. DESIGN CRITERIA FOR VENTILATION SYSTEMS ARE CONTAINED IN THE INDUSTRIAL VENTILATION MANUAL PUBLISHED BY THE ACGIH.

HYDROSCOPIC, REACTS VIOLENTLY WITH WATER. KEEP CONTAINER TIGHTLY CLOSED AND STORED IN A COOL, WELL-VENTILATED AREA.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY	UNDER NORMAL CONDITIONS OF USE RESPIRATORY PROTECTION IS NOT REQUIRED. HOWEVER, SHOULD CONDITIONS ARISE WHERE RESPIRATORS ARE NEEDED, USE ONLY NIOSH/MSHA RESPIRATORS APPROVED FOR DUST, FUME AND MIST.
EYE	CHEMICAL GOGGLES, FULL FACE SHIELD.
SKIN	GLOVES APPROVED FOR SULFURIC ACID.
OTHER	ACID RESISTANT APRON. SAFETY SHOWER AND EYEWASH STATION SHOULD BE PROXIMAL.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT	ELECTROLYTE	203 ºF (95 ºC)
MELTING POINT	ELECTROLYTE	N/A
SPECIFIC GRAVITY	ELECTROLYTE	1.22 TO 1.40
VAPOR PRESSURE	ELECTROLYTE	<1 mmHg @ 70 ºF
VAPOR DENSITY	ELECTROLYTE	>1
SOLUBILITY	ELECTROLYTE	100%
% VOLATILES BY VOL	ELECTROLYTE	NEGLIGIBLE
%EVAPORATION RATE	ELECTROLYTE	<1
APPEARANCE AND ODOR	CLEAR LIQUID, NO ODOR.	

SECTION 10: STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY	NONE
INCOMPATIBILITY	CONTACT OF ELECTROLYTE WITH ORGANIC MATERIAL.
HAZARDOUS DECOMPOSITION PRODUCTS	SULFURIC ACID MIST, SULFUR DIOXIDE AND CARBON MONOXIDE MAY BE RELEASED WHEN ELECTROLYTE DECOMPOSES.
CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION	WILL NOT OCCUR

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE OVEREXPOSURE	SULFURIC ACID MAY CAUSE IRRITATION TO THE EYES, NOSE AND THROAT. DIFFICULTY IN BREATHING MAY BE EXPERIENCED. ACID SPLASHED IN THE EYES OR ON THE SKIN MAY CAUSE BURNS OR IRRITATION.
CHRONIC OVEREXPOSURE	REPEATED PROLONGED EXPOSURE TO DILUTE SULFURIC ACID MAY CAUSE IRRITATION OF THE SKIN. REPEATED OR PROLONGED EXPOSURE TO MIST OR VAPORS OF SULFURIC ACID MAY CAUSE EROSION OF THE TEETH, CHRONIC IRRITATION OF THE EYES OR CHRONIC INFLAMMATION TO THE NOSE, THROAT AND BRONCHIAL TUBES.

SECTION 12: ECOLOGICAL INFORMATION

ENSURE THAT THE PRODUCT DOES NOT COME INTO CONTACT WITH BODIES OF WATER OR STORM DRAINS WHICH COULD CAUSE RELEASE TO BODIES OF WATER.

SECTION 13: DISPOSAL CONSIDERATION

SULFURIC ACID MAY BE PLACED IN COMPATIBLE SEALED CONTAINERS OR ABSORBED WITH DRY SAND OR EARTH. BE SURE TO CONSULT WITH LOCAL OR REGIONAL AUTHORITIES PRIOR TO ANY DISPOSAL. WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL AUTHORITIES.

SECTION 14: TRANSPORTATION INFORMATION

US DOT DESCRIPTION FOR GROUND TRANSPORT:	CONSUMER COMMODITY ORM-D ELECTROLYTE IN PLASTIC BOTTLE, “LTD QTY” UN2796, BATTERY FLUID, ACID, 8, PG II

SECTION 15: REGULATORY INFORMATION

PROPOSITION 65 WARNING

N/A

SARA TITLE III

THE CHEMICALS LISTED BELOW ARE TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372.

SECTION 16: OTHER INFORMATION

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. VENDOR ASSUMES NO RESPONSIBILITY FOR INJURY TO VENDEE OR THIRD PERSON PROXIMATELY CAUSED BY ABNORMAL USE OF THE MATERIAL EVEN IF REASONABLE SAFETY PROCEDURES ARE FOLLOWED. FURTHERMORE, VENDEE ASSUMES THE RISK IN THIS USE OF THE MATERIAL.

PRECAUTIONARY STATEMENTS

AVOID THE USE OF NON-INSULATED TOOLS. IF THEY ARE REQUIRED, TAKE CARE NOT TO MAKE A CONNECTION BETWEEN THE TWO BATTERY TERMINALS AS SEVERE SPARKING MAY OCCUR WHICH COULD RESULT IN AN EXPLOSION. RINGS, METAL WATCH BANDS, NECKLACES AND OTHER JEWELRY SHOULD BE REMOVED WHILE SERVICING BATTERIES.

SUFFICIENT VENTILATION SHOULD BE PROVIDED IN ALL WORK AREAS TO PREVENT A BUILD UP OF DANGEROUS GASES. IF THE BATTERY ROOM IS AIR CONDITIONED AS PART OF AN OVERALL BUILDING SYSTEM, THE EXHAUST AIR FROM THE BATTERY ROOM SHOULD NOT BE RETURNED TO THE AIR DISTRIBUTION SYSTEM. THE ROOM SHOULD HAVE ITS OWN EXHAUST SYSTEM CONNECTED DIRECTLY TO OUTSIDE AIR. HYDROGEN AND OXYGEN GASES ARE PRODUCED DURING NORMAL BATTERY OPERATION, ESPECIALLY DURING CHARGING. HYDROGEN GAS IS LIGHTER THAN AIR, COLORLESS, ODORLESS AND TASTELESS, THEREFORE IT IS DIFFICULT TO DETECT WITHOUT SPECIAL EQUIPMENT. ALWAYS ASSUME THAT SMALL AMOUNTS OF GASES ARE PRESENT AND TAKE ALL NECESSARY PRECAUTIONS.

THIS INFORMATION SHOULD BE INCLUDED IN ALL MSDS' THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

UPDATED BY: JESUS BUENO LUNA, ENVIRONMENTAL / HEALTH AND SAFETY SPECIALIST
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