

ORION RESEARCH INCORPORATED
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I. PRODUCT IDENTIFICATION

PRODUCT NAME: PERPHECT BUFFER 4
CATALOG NO.: 910410, 910425, 910450 EFFECTIVE DATE: 06/01/91
HAZARDOUS SHIPMENT LABELLING: DOT: NONE IATA: NONE

PREPARED BY: THOMAS F. FLYNN, QUALITY ASSURANCE CHEMIST
APPROVED BY : LYNN ORLOWITZ, DIRECTOR REGULATORY MATTERS

II. HAZARDOUS INGREDIENTS (IDENTY INFORMATION)

HAZARDOUS COMPONENTS:	CAS #	%	OSHA PEL	ACGIH TLV	LD50MG/KG
POTASSIUM HYDROGEN PHTHALATE	877-24-7	1.01	NONE	NONE	NONE LISTED
AMARANTH RED DYE *	915-67-3	0.005	NONE	NONE	1,000
* (C20H11N2O10S3.3NA)					(IPR-MUS)
**DE-IONIZED WATER (H2O)	7732-18-5	98.985	NONE	NONE	190,000
					(IPR-MUS)

III. PHYSICAL DATA

BOILING POINT: 100 C FREEZING POINT: 0 C
SPECIFIC GRAVITY (H2O=1): 1.0 VAPOR PRESSURE: N/A
PH @ 25 C: 4.01 SOLUBILITY IN WATER: MISCIBILE
VOLATILES, % BY WEIGHT: N/A EVAPORATION RATE (BUTYL ACETATE=1): N/A
VAPOR DENSITY (AIR=1): N/A
APPEARANCE AND ODOR: LIGHT RED, ODORLESS LIQUID

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD): NOT FLAMMABLE AUTOIGNITION TEMPERATURE: N/A
FLAMMABLE LIMITS IN AIR, % BY VOLUME: LOWER: N/A UPPER: N/A
EXTINGUISHING MEDIA: WATER, CO2, DRY CHEMICAL, FOAM OR SPRAY
SPECIAL FIRE-FIGHTING PROCEDURES: NONE
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

V. REACTIVITY DATA

STABILITY: STABLE CONDITIONS TO AVOID:
INCOMPATIBILITY (MATERIALS TO AVOID): NITRIC ACID
HAZARDOUS DECOMPOSTION PRODUCTS: NONE
HAZARDOUS POLYMERIZATION WILL NOT OCCUR. CONDITIONS TO AVOID: NONE

VI. HEALTH HAZARD DATA

ROUTES OF ENTRY: INHALATION: NO SKIN: YES INGESTION: YES

HEALTH HAZARDS (ACUTE AND CHRONIC);
ACUTE: LOW HAZARD BECAUSE OF LOW CONCENTRATION OF SALTS.
CHRONIC: POSSIBLE IRRITATION OF SKIN FOR PROLONGED EXPOSURE.

CARCINOGENICITY: NTP ? IARC MONOGRAPHS? OSHA REGULATED?
(SUSPECT) (ANIMAL POSITIVE) NOT FOUND
SIGNS AND SYMPTOMS OF EXPOSURE: IRRITATION OR REDNESS OF THE SKIN.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
POSSIBLE AGGRAVATION OF SKIN DISEASES.

EMERGENCY AND FIRST AID PROCEDURES: WASH OFF CONTACT AREA WITH WATER.
IF INGESTED, GIVE LARGE AMOUNTS OF WATER AND CONTACT A PHYSICIAN.

VII. PRECAUTIONS (SAFE HANDLING AND USE)

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
WASH DOWN DRAIN WITH WATER IF LOCAL LAW ALLOWS.

WASTE DISPOSAL METHOD:
CONSULT WITH AND OBSERVE ALL FEDERAL, STATE AND LOCAL LAWS WHEN DISPOSING
OF THIS PRODUCT.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
SUITABLE FOR GENERAL STORAGE. THIS PRODUCT IS NOT REGULATED UNDER SARA
TITLE III.

OTHER PRECAUTIONS:
NOT AFFECTED BY CAL. PROP. 65. NFPA RATING: (0-4) HEALTH 1, FIRE 0,
REACTIVITY 1, SPECIFIC NONE.

VII. CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): NONE
VENTILATION: LOCAL EXHAUST: NO SPECIAL: NO
MECHANICAL (GENERAL): NO OTHER: NO
PROTECTIVE GLOVES: YES EYE PROTECTION: SAFETY GLASSES
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NO
WORK/HYGENIC PRACTICES: NO EATING OR DRINKING WHILE WORKING WITH THIS PRODUCT.
CHEMICALS WHICH ARE NOT CLASSIFIED AS HAZARDOUS PER U.S. OSHA GUIDELINES
(29CFR PARTS 1915.2 OR 1916.2) OR THE MASSACHUSETTS SUBSTANCE LIST
(105CMR670.000 APPENDIX A) WILL NOT NECESSARILY BE LISTED ON THIS FORM
EVEN THOUGH ONE OR MORE MAY BE A CONSTITUENT OF THIS PRODUCT.

LIABILITY IS EXPRESSLY DISCLAIMED FOR ANY LOSS OR INJURY ARISING OUT OF THE
USE OF THIS INFORMATION OR THE USE OF ANY MATERIALS DESIGNATED. SAFE
USE OF THE MATERIALS IS THE RESPONSIBILITY OF THE USER.

NA = NOT AVAILABLE/NOT APPLICABLE **NON-HAZARDOUS COMPONENT