

MATERIAL SAFETY DATA SHEET

MANUFACTURER

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PRODUCT IDENTIFICATION

PRODUCT: Mini PAP Pen, Super PAP Pen
CATALOG #: 10-0041, 10-0045

HAZARDOUS COMPONENT INFORMATION

THE PROVIDED INFORMATION IS BELIEVED TO BE CORRECT, BUT DOES NOT CLAIM TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. TRAINED PERSONNEL AND GOOD LABORATORY PRACTICES SHOULD COMPLEMENT USE OF THIS PRODUCT. GENEMED BIOTECHNOLOGIES, INC. SHALL NOT BE HELD LIABLE FOR ANY DAMAGES RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.

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SECTION 1

CHEMICAL IDENTIFICATION

NAME: **PAP Pen**

SECTION 2

COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	%	CAS#/EINECS#	HAZARD CLASSIFICATION:
1-BROMOPROPANE	60-100	106-94-5 / 203-445-0	F: R11 T: R36/37/38-48/20-60-63- 67
DIPENTENE	5-10	138-86-3 / 205-341-0	R10 XI: R38-43 N: R50/53

NOTE: THE HAZARD CLASSIFICATION LISTED IN THIS SECTION REFERS TO THE CHEMICAL AT A PURE CONCENTRATION. IT HAS BEEN DETERMINED THAT THE REMAINING INGREDIENT(S) OF THIS COMPONENT/PRODUCT ARE NOT CLASSIFIED AS HAZARDOUS CHEMICALS DUE TO THEIR PHYSICAL AND/OR CHEMICAL NATURE AND/OR CONCENTRATION IN SOLUTION, IN ACCORDANCE WITH CALIFORNIA AND FEDERAL OSHA REGULATIONS (FEDERAL REGISTER 29CFR 1910.1200), AND THE CHEMICALS (HAZARD INFORMATION AND PACKAGING FOR SUPPLY) REGULATIONS (EUROPEAN COMMUNITY).

SECTION 3

HAZARDS IDENTIFICATION

PHYSICAL AND CHEMICAL HAZARDS: THIS PRODUCT/COMPONENT IS FLAMMABLE, AND HEATING MAY GENERATE VAPORS WHICH MAY FORM EXPLOSIVE VAPOR/AIR MIXTURES.
SKIN CONTACT: MAY BE DEGREASING AFTER FREQUENT CONTACT. RISK OF SENSITIZATION OR ALLERGIC REACTIONS AMONG SENSITIVE INDIVIDUALS.
EYE CONTACT: DIRECT CONTACT MAY IRRITATE.
INHALATION: AT HIGH CONCENTRATIONS, HARMFUL BY INHALATION.
INGESTION: NO HARMFUL EFFECTS EXPECTED IN AMOUNTS LIKELY TO BE INGESTED BY ACCIDENT. HOWEVER, INGESTION MAY CAUSE IRRITATION AND MALAISE.
ENVIRONMENT: TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

SECTION 4

FIRST AID MEASURES

SKIN: REMOVE VICTIM TO NEAREST SOURCE OF WATER. REMOVE CONTAMINATED CLOTHING, BLOT EXCESS CHEMICAL FROM SKIN AND WASH AFFECTED AREA UNDER LUKEWARM WATER USING A MILD SOAP. RINSE FOR AT LEAST 20 MINUTES AND BLOT DRY. SEEK IMMEDIATE MEDICAL ATTENTION.
EYE: REMOVE VICTIM TO NEAREST SOURCE OF WATER, BLOT EXCESS CHEMICAL FROM FACE AND GENTLY RINSE AFFECTED EYE(S) WITH CLEAN, LUKEWARM WATER FOR AT LEAST 20 MINUTES. IN ORDER TO CLEANSE AS MUCH OF THE EYE AS POSSIBLE, BE SURE TO WASH UNDER EYELIDS. IF WORN, HAVE VICTIM REMOVE CONTACTS. SEEK MEDICAL ATTENTION. IF EYES ARE PAINFUL OR SENSITIVE TO LIGHT, PROTECT WITH A CLEAN, LOOSELY TIED HANDKERCHIEF OR TOWEL. MAINTAIN PHYSICAL AND VERBAL CONTACT WITH VICTIM.
INHALATION: REMOVE VICTIM TO WELL-VENTILATED AREA. SEEK MEDICAL ATTENTION. IF CONSCIOUS BUT COUGHING OR SHORT OF BREATH, LOOSEN TIGHT FITTING CLOTHING, HAVE VICTIM LIE DOWN AND KEEP WARM AND CALM. OXYGEN MAY BE GIVEN. IF SIMPLY OVERWHELMED, LOOSEN TIGHT CLOTHING, LIE VICTIM DOWN, MONITOR PULSE AND KEEP WARM AND CALM.
INGESTION: REMOVE VICTIM TO WELL-VENTILATED AREA. SEEK IMMEDIATE MEDICAL ATTENTION. IF FACE IS BLUE OR BREATHING IS LABORED, LAY VICTIM ON BACK, OPEN AND CLEAR AIRWAY AND GIVE OXYGEN. KEEP VICTIM WARM AND CALM. IF UNCONSCIOUS, LAY VICTIM ON SIDE, LOOSEN TIGHT CLOTHING AND MONITOR VITAL

SIGNS. IF CONSCIOUS, GIVE WATER AND HAVE VICTIM RINSE MOUTH. IF VOMITING, HAVE VICTIM SITTING UP AND LEANING FORWARD.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT/EXPLOSION INFORMATION: 48°C (FLAMMABLE – EU; COMBUSTIBLE - OSHA) / LEL: N/A UEL: N/A

PRECAUTIONS DURING FIRE: IF PRESENT, VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASHBACK. AVOID INHALATION OF TOXIC FUMES. IF POSSIBLE, SAFELY MOVE CONTAINER AWAY FROM FIRE AREA.

SUITABLE EXTINGUISHING MEDIA: ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

SPECIAL EXPOSURE HAZARDS: COMBUSTION OR DECOMPOSITION OF MATERIAL MAY PRODUCE HAZARDOUS AND/OR IRRITATING FUMES. HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH EYES AND SKIN.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING IS RECOMMENDED DURING ALL CLEANUP PROCEDURES. ELIMINATE ALL IGNITION SOURCES, STOP OR CONTROL LEAK. REFER TO SECTION 8 FOR ADDITIONAL INFORMATION ON EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT.

ENVIRONMENTAL PRECAUTIONS: DO NOT ALLOW INTO ANY BODY OF WATER. CHECK WITH LOCAL AND STATE REGULATIONS BEFORE DISCHARGING INTO SEWERS OR PUBLIC LANDFILLS.

METHODS FOR CLEANUP: AVOID PHYSICAL CONTACT DURING REMOVAL. AN APPROVED RESPIRATOR IS RECOMMENDED WHEN IRRITANT OR NUISANCE VAPORS ARE PRODUCED. COVER SPILL WITH DRY LIME OR SODA ASH, AND PLACE IN A CLOSED CONTAINER AND HOLD FOR WASTE DISPOSAL. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE. REFER TO SECTION 13 FOR COMPLETE DISPOSAL INFORMATION.

SECTION 7 HANDLING AND STORAGE

KEEP CONTAINERS TIGHTLY CLOSED. STORE IN A COOL, DRY AND WELL-VENTILATED LOCATION AT ROOM TEMPERATURE. STORE AWAY FROM OXIDIZERS AND IGNITION SOURCES. KEEP OUT OF REACH OF CHILDREN.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

PERMISSIBLE EXPOSURE LIMIT (OSHA TWA/TLV/STEL): 1-BROMOPROPANE: NONE IDENTIFIED.
DIPENTENE: NONE IDENTIFIED.

PRECAUTIONARY MEASURES DURING USE: AVOID PHYSICAL CONTACT AND PROLONGED OR REPEATED EXPOSURES. A CHEMICAL FUME HOOD IS HIGHLY RECOMMENDED. DO NOT BREATHE VAPORS IF PRODUCED. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. WASH THOROUGHLY AFTER HANDLING. MECHANICAL EXHAUST IS REQUIRED.

INHALATION: RESPIRATORY PROTECTION IS HIGHLY RECOMMENDED IF IRRITATING VAPORS ARE PRODUCED DURING ROUTINE USAGE OF THIS PRODUCT. THOUGH IT IS NOT LIKELY, IF TWA OR OTHER EXPOSURE LIMITS ARE EXCEEDED DURING THE USAGE OF THIS MATERIAL, ATTEMPT TO REDUCE EXPOSURE LEVELS TO WITHIN AN ACCEPTABLE RANGE. IF THIS IS NOT POSSIBLE, USE A NIOSH/MSHA-APPROVED RESPIRATOR. FOLLOW NIOSH/MSHA AND EQUIPMENT MANUFACTURER'S RECOMMENDATIONS TO DETERMINE APPROPRIATE EQUIPMENT CHOICE. CHEMICALS WITHOUT ESTABLISHED LIMITS MUST ALSO BE CONSIDERED WHEN DETERMINING RESPIRATORY PROTECTION PROTOCOLS.

SKIN: USE CHEMICALLY RESISTANT GLOVES (E.G. NITRILE), LAB COAT WITH SLEEVES OR RUBBER APRON. BE AWARE THAT OVER TIME, THE LIQUID MAY PENETRATE THE GLOVES. FREQUENT CHANGE IS ADVISABLE. SOME GLOVE TYPES MAY NOT BE COMPATIBLE FOR USE WITH THIS COMPONENT. OTHER TYPES OF GLOVES CAN BE RECOMMENDED BY THE GLOVE SUPPLIER.
EYE: SPLASH-PROOF CHEMICAL SAFETY GOGGLES OR FACE SHIELD.
OTHER: EYE WASH OR SAFETY SHOWER.
ENVIRONMENTAL EXPOSURE CONTROLS: NOT AVAILABLE.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: GREEN LIQUID.
ODOR: N/A
PH (AS SUPPLIED): 7.0
BOILING POINT/BOILING RANGE: 71°C
MELTING POINT/MELTING RANGE: -110°C
FLAMMABILITY (LIQUID): FLAMMABLE (EU)
% VOLATILES BY VOLUME: N/A
AUTOFLAMMABILITY: N/A
OXIDIZING PROPERTIES: N/A
VAPOR PRESSURE (KPA): N/A
RELATIVE DENSITY (GM/ML @ 20°C): N/A
WATER SOLUBILITY: INSOLUBLE
ALCOHOL OR GLYCEROL SOLUBILITY: N/A
EVAPORATION RATE: N/A

SECTION 10 STABILITY AND REACTIVITY

STABILITY: STABLE WHEN USED APPROPRIATELY.
CONDITIONS TO AVOID: CONTACT WITH HEAT, SPARKS, FLAMES AND OTHER IGNITION SOURCES.
MATERIALS TO AVOID: STRONG BASES, STRONG OXIDIZING AGENTS.
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE, HYDROGEN BROMIDE GAS.

SECTION 11 TOXICOLOGICAL INFORMATION

1-BROMOPROPANE: TOXIC. TERATOGEN. REPRODUCTIVE HAZARD. IPT-MOUSE LD50 = 2950 MG/KG.
TARGET ORGAN(S): NONE IDENTIFIED.
DIPENTENE: IRRITANT, SENSITIZER. ORL-RAT LD50 = 5300 MG/KG.
TARGET ORGAN(S): NONE IDENTIFIED.

NOTE: TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED AT PRODUCT CONCENTRATIONS.

SECTION 12 ECOLOGICAL INFORMATION

MOBILITY: THIS PRODUCT/COMPONENT IS INSOLUBLE IN WATER AND WILL SPREAD ON THE WATER SURFACE.
DEGRADABILITY: NO INFORMATION AVAILABLE.
ACCUMULATION: NO INFORMATION AVAILABLE.
ECOTOXICITY: TOXIC TO AQUATIC ORGANISMS, AND MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
OTHER HAZARDOUS EFFECTS: NONE IDENTIFIED.

SECTION 13**DISPOSAL CONSIDERATIONS**

WASTE MANAGEMENT INFORMATION (DISPOSAL): WHEN DISPOSING OF THE UNUSED CONTENTS, THE PREFERRED OPTIONS ARE TO SEND TO A LICENSED RECLAIMER, OR PERMITTED INCINERATORS. ANY DISPOSAL PRACTICE MUST BE IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. CHECK WITH LOCAL AND STATE REGULATIONS BEFORE DISCHARGING INTO SEWERS OR PUBLIC LANDFILLS. DO NOT DUMP INTO ANY BODY OF WATER.

SECTION 14**TRANSPORT INFORMATION**

IATA CLASSIFICATION: NOT RESTRICTED. WHEN SHIPPED ALONE OR WITH OTHER NON-HAZARDOUS MATERIALS, THE TEXT "NOT RESTRICTED" MUST BE INCLUDED IN THE DESCRIPTION ON THE AIR WAYBILL TO INDICATE THAT THIS MIXTURE IS NOT SUBJECT TO IATA REGULATIONS, AND HAS BEEN CHECKED. (4.1.3.3 / IATA DANGEROUS GOODS REGULATIONS).

PROPER SHIPPING NAME: N/A

HAZARD CLASS#: N/A PACKING GROUP# / PI#: N/A

ADR/RID: N/A UN#: N/A

SECTION 15**REGULATORY INFORMATION**

CONTAINS: 60-100% 1-BROMOPROPANE, 5-10% DIPENTENE

R-AND S-PHRASES:

R10 : FLAMMABLE.

R20 : HARMFUL BY INHALATION.

R43 : MAY CAUSE SENSITIZATION BY SKIN CONTACT.

R51/53 : TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

S24 : AVOID CONTACT WITH SKIN.

S35 : THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.

S37 : WEAR SUITABLE GLOVES.

S57 : USE APPROPRIATE CONTAINER TO AVOID ENVIRONMENTAL CONTAMINATION.

S61 : AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEETS.

AS A GENERAL RULE, PERSONS UNDER 18 YEARS OF AGE ARE NOT ALLOWED TO WORK WITH THIS PRODUCT. USERS MUST BE CAREFULLY INSTRUCTED IN THE PROPER WORK PROCEDURE, THE DANGEROUS PROPERTIES OF THE PRODUCT AND THE NECESSARY SAFETY INSTRUCTIONS.

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