

**MATERIAL SAFETY DATA SHEET**  
**FILENAME OF PRODUCT : Deep Blue Wax**  
**MSDS DATE: 07/18/2014**

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** Deep Blue Wax  
**SYNONYMS:** Deep Blue Machining Wax

**MANUFACTURER:** .decimal  
**ADDRESS:** 121 Central Park Place  
Sanford, FL 32771

**EMERGENCY PHONE:**  
**OTHER CALLS:** 407-330-3300  
**FAX PHONE:** 407-322-7546

**CHEMICAL FAMILY:** Polyethylene Wax

**PRODUCT USE:** Proton Compensators, Electron Bolus, and Electron Apertures used in cancer treatment.  
Machining Prototyping

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

**INGREDIENT:** Proprietary Mixture

Within the definition of Hazardous Materials as per OSHA Standard 29 CFR 1910.1200 (c), this product is not hazardous.

**SECTION 3: HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW: WARNING!** Hot wax can cause burns to the skin and eyes. When Handling hot wax, use heat protective gloves and other PPE to protect against thermal burns. Spills or wax particles may create a slipping hazard.

**ROUTES OF ENTRY:** Inhalation when product is thermally degraded or when product is cut and produces dust.

**ACUTE/CHRONIC HEALTH EFFECTS:**

**Solid Product:** Acute and chronic health effects are not expected as long as current Good Manufacturing Practices for hygiene and safety are followed.

**EYES:** Contact with dust and chips from machining and cutting may cause irritation or scratching of the Cornea.

**SKIN:** No significant adverse effects anticipated.

**INGESTION:** Ingesting wax material can obstruct the intestine.

**INHALATION:** Dust from machining and cutting can cause respiratory tract irritation and other breathing disorders.

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**Hot molten product:**

**EYES:** Contact with hot product will cause burns to the eyes.

**SKIN:** Contact with hot material may result in serious burns.

**INGESTION:** Ingesting hot material will result in serious internal burns.

**INHALATION:** At elevated temperatures dense fumes may develop which can cause respiratory tract irritation  
and other breathing disorders.

**Carcinogenicty:** IARC, NTP, and OSHA do not list any component as a carcinogen.

**SECTION 4: FIRST AID MEASURES**

**Inhalation:** Remove to fresh air. If breathing is difficult give oxygen and/or artificial respiration.

**Eye Contact:** Remove contact lenses. Hold eyelids apart. Immediately flush eyes with low pressure water for at least 15 minutes. Get medical attention if irritation persists. For HOT MOLTEN product: Cool burns with plenty of low pressure water. Get immediate medical attention.

**Skin Contact:** Wash with soap and water. Get medical attention if irritation develops or persists. For Hot MOLTEN product: Immediately cool the skin with water and cold packs for at least 15 minutes. DO NOT put ice directly on the skin. DO NOT attempt to remove solidified wax from the skin As severe tissue damage may result. Get immediate medical attention. See Physician note.

**Ingestion:** Not an ingestion hazard under anticipated conditions of use. For accidental ingestion: If conscious, drink one to two glasses of water (8-16 oz.). DO NOT induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person

**Note to Physicians:** For HOT MOLTEN OR HOT LIQUID: Material should not be forcibly pulled from the skin. Mineral oil may be used to loosen and soften the material.

**SECTION 5: FIRE-FIGHTING MEASURES**

**FLASH POINT:**

F: 575  
C: 302

**NFPA HAZARD CLASSIFICATION**

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0

**HMIS HAZARD CLASSIFICATION**

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0  
PROTECTION:

**EXTINGUISHING MEDIA:** water fog, dry chemical,foam, carbon dioxide

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**Inappropriate Extinguishing Media:** Straight Streams of Water

**SPECIAL FIRE FIGHTING PROCEDURES:** Water spray to cool fire exposed surfaces. Wear self-contained Breathing apparatus and protective clothing to enter area.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None

**HAZARDOUS DECOMPOSITION PRODUCTS:** CO, CO<sub>2</sub>, acetic acid, formaldehyde, acetaldehyde, smoke, fumes

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Product is non-hazardous in its delivered form.**

**Personal Precautions, Protective equipment and Emergency Procedures:** Wear personal protective clothing and equipment.

**Environmental Precautions:** Avoid release to the environment.

**Methods and Material for Containment and Clean up:** Collect spilled material in appropriate container for Disposal. Keep unneeded people away, isolate hazard area.

## **SECTION 7: HANDLING AND STORAGE**

**Precautions for Safe Handling:** Use normal precautions when handling hot and/or molten liquid material. Do not breathe fumes or vapor from heated material. Do not breathe dust. Avoid contact with eyes. When using do not eat, drink or smoke. Wash thoroughly after handling. Use methods to minimize dust. Use only with adequate ventilation. Do not heat this material above the flash point.

**Conditions for storage:** Store at ambient temperature. This material can catch fire if overheated. Keep Material away from flame and open electrical coils.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering Controls:** Provide exhaust ventilation or other controls to keep airborne concentrations of mists, dust and/or vapors below the recommended exposure limits. An eye wash station and safety shower should be located near the work area.

**Respiratory Protection:** The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation and dust collection systems. If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use and maintenance must be accordance with regulatory requirements. A NIOSH approved organic vapor respirator with a dust/mist pre-filter should be use if condition so require

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Protective Clothing:

**Hand Protection:** Wear thermally resistant gloves and long sleeves or gauntlet style gloves when handling molten product. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use. Inspect and replace worn or damaged gloves.

**Eye Protection:** Safety glasses with side shields are recommended.

**Skin and Body Protection:** If the product is hot or molten, thermally protected, chemical resistant apron and long sleeves are recommended. If there is the possibility that molten material may splash a full face shield is recommended.

**Specific Hygiene Measures:** Always observe good personal hygiene measures, such as washing after Handling the material and before eating, drinking or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing, footwear and protective equipment that cannot be cleaned. Practice good housekeeping.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Blue

**ODOR:** Faint odor

**PHYSICAL STATE:** Solid

**BOILING POINT:**

F: 450

C: 232

**FREEZE/MELTING POINT:**

F: 225

C: 107

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** .90-.94

@

F: 77

C: 25

**PERCENT VOLATILE:** Negligible

## SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** Stability at room temperature in closed containers under normal storage and handling conditions.

**CONDITIONS TO AVOID (STABILITY):** Heat and open flame.

**INCOMPATIBILITY (MATERIAL TO AVOID):**

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Thermal oxidation decomposition can produce CO,

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CO<sub>2</sub>, acetic acid, formaldehyde, acetaldehyde, smoke, fumes

**HAZARDOUS POLYMERIZATION:** Hazardous polymerization will not occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

**TOXICOLOGICAL INFORMATION:** Minimally Toxic: Based on chemical structure (polymers).

**Inhalation:** Negligible hazard at ambient/normal handling temperatures.

**Ingestion:**

**Skin:** Negligible irritation to skin at ambient temperatures.

**Eye:** May cause mild, short-lasting discomfort to eyes.

**Other effects:** Elevated temperatures or mechanical action may form vapors, mists or fumes which may be irritating to the eyes and respiratory tract.

Dust may be irritating to eyes and respiratory tract.

## SECTION 12: ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:** No known evidence of adverse effects from available information.

## SECTION 13: DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

**WASTE DISPOSAL METHOD:** Suitable routes of disposal are supervised incineration, or appropriate recycling methods with applicable regulations and material characteristics at the time of disposal.

**RCRA HAZARD CLASS:** The unused product, in our opinion, is not specifically listed by the EPCRA as a Hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous.

## SECTION 14: TRANSPORT INFORMATION

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**U.S. DEPARTMENT OF TRANSPORTATION**

DOT Transportation Data ( 49 CFR 172.1010

**PROPER SHIPPING NAME:** Non-Regulated

**SECTION 15: REGULATORY INFORMATION**

**TSCA (US Toxic Substances Control Act), Sec 8(b):** These products are listed on the TSCA inventory.  
**TSCA, Sec 12(b):** These products do not contain substances subject to reporting

**WHMIS (Canada) Status:** non-controlled

**SARA Title III:** In accordance with the provisions of Title III, Sections 311 & 312 of the Superfund Amendments and Reauthorization Act, these products are not hazardous. These products do not contain Section 313 Reportable Ingredients.

**RCRA:** In the form delivered by Westlake, these products are not considered as hazardous waste, and are not subject to reporting under the Resource Conservation and Recovery Act.

**CERCLA:** In the event of a spill, the end user should verify whether reporting is required under local, state, and/or federal regulations.

**California Prop 65:** In compliance, no reportable substances

**CONEG:** These products are in compliance with the heavy metals requirements of the Coalition of Northeastern Governors and California Toxics in Packaging Prevention Act (AB2021).

**Ozone Depleting Substances:** none reportable, in compliance with 40 CFR 82.

**Carcinogenicity Classification (components present at 0.1% or more):** none, unless listed below:  
**IARC (International Agency for Research on Cancer)** none  
**NTP (National Toxicology Program)** none

**European Hazardous Chemicals:** Does not contain REACH SVHC per the issue date herein, In compliance with 1272/2008/EC, 2002/95/EC & 2011/65/EC (RoHS), 2002/96/EC (WEEE). These polymers are not hazardous according to EC Directives.

**DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):** These products are listed on the DSL.

**EINECS (European Inventory of Existing Commercial Chemical Substances):** These products comply with EINECS requirements. They are 100% polymers and are therefore exempt from listing; the monomer, ethylene is EINECS listed.

**AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals**

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**Notification and Assessment Scheme): These products are listed on AICS or otherwise comply with NICNAS.**

**ENCS, ISHL, MITI (Japan Chemical Substance Inventories): These products are listed in the Handbook or have been approved in Japan by new substance notification.**

**ECL (Korean Toxic Substances Control Act): These products are listed on the Korean inventory and comply with the Korean Toxic Substances Control Act.**

## **SECTION 16: OTHER INFORMATION**

**For more information:** Contact .decimal LLC Customer Service 1-800-255-1613  
(Monday-Friday, 7:30am-5:00pm EST)

### **Disclaimer:**

This material safety data sheet cannot cover all possible situations which the user may experience during processing. Each aspect of the user's operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this material safety data sheet should be provided to employees and/or customers. .decimal LLC must rely on the user to use this information to develop appropriate work practice guidelines and employee instructional programs specific to the user's operation.

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