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ECOBALMING WITH ENIGMA: THE CHAMPION GUIDE TO GREEN EMBALMING PRACTICES AND POSTMORTEM PREPARATION OF BODIES FOR NATURAL/GREEN BURIAL AND ECOCREMATION/DISPOSITION.

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ABSTRACT: Modern, enlightened 21st Century Ecobalming demands safe, effective, nontoxic, nonhazardous alternatives to toxic and archaic formaldehyde-style embalming and post-mortem practices and products. The funeral industry's traditional hazardous chemicals are no longer acceptable or desirable. I offer to you, then, this comprehensive guide to what is and what is not allowed in Ecobalming procedures and present effective, alternative strategies of post-mortem preparation that incorporates these modern standards. Welcome to the safer and saner future of embalming with Champions' Enigma Line of Ecobalming products.

Natural/Green burial demands a new and enlightened definition, approach and procedure that is drastically different from traditional toxic formaldehyde embalming, which is, unfortunately, the accepted standard in the United States. Classic embalming, with its exposure dangers and toxic effects, needs to be altered and redefined as Ecobalming. The traditional/archaic Tenets, and their expected traditional results, need to be redefined and reemphasized, in a natural/green manner, as the revised Modern Tenets of Embalming. After investigations by me over many years, I offer to you a definitive natural/green mandatory criteria for embalming chemicals and materials that guarantees the safe, effective, non-toxic, non-hazardous nature and results of postmortem preparation in all its forms.

The revised MODERN TENETS OF EMBALMING are as follows:

PUBLIC SAFETY/TEMPORARY SANITATION

COSMETIC RESTORATION

TEMPORARY PRESERVATION

Successful implementation of the Modern Tenets of Embalming, results in a safe, effective, non-toxic, non-hazardous postmortem procedure that I prefer to designate as Ecobalming. This is achievable by following the **MANDATORY NATURAL/GREEN CRITERIA FOR CHEMICALS/MATERIALS IN ECO-BALMING**, which is as follows:

NO TOXICS

NO TOXIC-RELEASERS

NO REPORTABLE LIMITS OF EXPOSURE/USE

NO SECRET OR UNDISCLOSED INGREDIENTS

FULL-DISCLOSURE/CLEANSHEET MSDS

DOCUMENTED ENVIRO-IMPACT OF CHEMICAL COMPONENTS

Ecobalming, then, should be non-toxic, non-hazardous, safe, practical, acceptable for natural/green burial and ecocremation, ultra-low enviro-impact, readily biodegradable and capable of fulfilling the Modern Tenets. In addition, all chemicals used in the embalming products should be fully disclosed with no missing references to any hazardous or potentially hazardous chemical or containing any "trade-secret" ingredients. And finally, there should be no potential for release of any toxic/hazardous chemicals during use and disposition, whether it be natural/green burial or ecocremation. All this vitally important information regarding these products should be truthful, transparent, fully researched and public, irregardless of whether OSHA or other regulatory agencies require or demand the reporting on MSDS's or other forms. Ecobalming, as an alternative to traditional high exposure formaldehyde embalming, redefines the entire process of post mortem body preparation and blends into the new thinking and new awakening trends of the funeral industry where traditionalism, in all its archaic forms and embodiments, are being abandoned in favor of a modernist, practical and more meaningful end-of-life celebration.

The result is an extremely safe and practical substitute for dangerous and toxic traditionalist formaldehyde embalming. Chemostasis effects, retarding/slowing of decomposition, should be immediately noted after injection/infusion/application and are sufficient for effective holding of 3-5 days, and in some instances, possibly, a week or more (particularly with supplemental cooling, refrigeration). This allows adequate time for holding/transport and planning of the end-of-life celebration. The intent of ecobalming chemicals is to temporarily delay but not stop or inhibit natural decay processes and the natural and inevitable return to the elements of human remains. In addition, temporary sanitation effects enhances public safety and cosmetic restorative results are adequate for a pleasing memory picture and viewing of the deceased.

Implementation of ecobalming requires new thinking, new procedures and new alternative chemicals, products and devices for the modern embalmer. This redefining of what the industry is and does will require a reevaluation of toxic chemicals and how they are implemented in the funeral industry in general, and embalming in particular.

Traditional/toxic formaldehyde style embalming utilizes many chemicals, compounds and paraphernalia that are unacceptable for natural/green burial. Following then is a listing of these unacceptables.

PROHIBITED CHEMICALS AND MATERIALS FOR NATURAL/GREEN EMBALMING

- Formaldehyde, the toxic/carcinogenic choice of traditional embalming
- Phenols, a classic secondary chemical in embalming
- Methanol and other alcohols, as traditional solvents
- Glutaraldehyde, a preferred exposure substitute for formaldehyde, but still a reportable toxic
- Iodine and Iodine-releasers, a modern formaldehyde replacement, but still a reportable and lingering toxic
- Chlorinated chemicals such as dry-wash solvents, mothball powders, disinfectants, glue sprays and bleaches
- Toluene and petrochemicals, as found in mortuary makeup, solvents, insecticides
- Inhalable wood dusts and powders, in traditional autopsy/hardening compounds
- Wound fillers/tissue builders/glues containing various reportable toxics as active agents
- Acetone and other VOC's along with unreported salts, buffers, dyes and soaps in numerous products
- Wire mouth closures, metal/plastic formers, plastic eyecaps
- Synthetic nylon/rayon suture/thread
- Plastic leak protection garments
- Plastic trocar closures, A/V closures, skull clamps, PVC pipe/dowel rods for bone replacement

There are acceptable and effective substitutes for all of the above mortuary chemicals, products and paraphenalia available to modern embalmers and the funeral industry. The Champion Company has always lead the way to the future and the situation with natural/green burial is no exception. Our Enigma Ecobalming products, which are certified and approved by The Green Burial Council, allows a myriad of options for success in postmortem preparation of bodies for natural/green burial and ecocremation/disposition for the modern embalmer.

FOUR PROBLEMS — FOUR SOLUTIONS

Natural/green burial situations manifest four distinct problems for funeral director/embalmers during their care prior to burial or disposition. These include leakage potential, odor problems, abdominal gas and/or purge related to natural decomposition and, occasionally, a very undesirable appearance to the body. The Champion Company's Enigma Line of Ecobalming products offers safe and effective solutions to each of these four problems.

Leakage of blood, body fluids and other noxious exudates are present and can create a real problem, if not controlled. Funeral directors/embalmers are concerned about what might leak out of the wicker casket at the service or a home funeral. **ENIGMA COMPOUND** solves the problem completely by leak prevention/absorption with added deodorizing action. It can be used alone or combined with **ENIGMA TOPICAL** as an excellent deodorizing and leak protection/absorption material in the casket in various ways. A leak-proof bed can be easily made from **Compound** and bed sheets. Sachets of **Compound** can be made of pillow cases and **Compound**, and even with **Topical** sprayed on **Compound** to enhance the deodorizing effect. Utilizing **Compound** in the bodies underwear works effectively as deodorizing/leak absorption.

Even if the family requests no form of embalming, **Compound** and **Topical** are justified, dignified, simple and effective for deodorizing and leakage control, which is a real problem with unembalmed bodies. This procedure is similar to cleansing/anointing/preparation procedures that are practiced all over the world in many different cultures that do not condone embalming and in no way would usage be construed as disrespectful or a defilement of the body by any culture, religion or ethnicity.

Odor is a major problem with an unembalmed body. Decomposition and natural odors are very disagreeable and obvious to the people in attendance at the natural/green service/wake/burial. **ENIGMA TOPICAL** solves the problem by strong deodorizing and sanitizing action that is easy to apply by spray or by concentrated pouring into **ENIGMA COMPOUND** for extra deodorizing and odor control. **Topical** is an excellent alternative for a body that is not to be arterially embalmed. It serves as a valuable sanitizing/deodorizing application to the orifices and a general anointing treatment applied over the entire body after cleansing to make the body deodorized and presentable. **Topical** sprayed onto **Compound** makes a powerful deodorizing sachet, pillow or leak-preventing bed that is effective and completely non-invasive and acceptable to all families that wish natural/green burial or eco-cremation/disposition.

Gas buildup and potential for purge is a real and potentially serious problem. Decomposition starts in the cavity and gas formation is inevitable with the high probability of purge, as a result. **ENIGMA CAVITY** either applied American style or European style solves and controls this problem. American style cavity treatment with full aspiration followed by **ENIGMA CAVITY** is the most effective. Also effective and far less invasive is European style where no aspiration is done and **Cavity** is injected into the Cavity and explained as the introduction of a concentrated mixture of essential oils into the abdomen to temporarily control natural decomposition, in a very minimally invasive procedure. That can be used alone, with or without aspiration, to effectively hold a natural/green body without arterial injection.

90% of all problems start in the cavities, and using **Cavity** helps prevent decomposition, putrefaction gases and controls odor by sanitizing/deodorizing in its action. **Cavity** can also be used as a stand alone pack for the serious traumatized or diseased areas of the body, without any arterial injection. Some natural/green families will not want invasive arterial injection and aspiration, but will accept minimal treatment as described above. This practice is not unusual in Europe, where arterial injection is seldom done, but other less invasive treatments, such as cavity and packing is accepted.

Some unembalmed bodies are quite acceptable looking, while others are unacceptable and can even be frightening because of trauma, certain causes of death, serious disease prior to death and delay between death and burial. **ENIGMA ARTERIAL** allows blood clearing of the capillaries and creation of a background cosmetic effect that minimizes the unappealing aspects of a dead body. Sometimes as little as 1 gallon serves the purpose, whereas in some cases and large bodies 2-3 gallons may be necessary. Use **Arterial** in a quantity that accomplishes the effect you want and then stop. **Arterial** will not be seen as all that important, natural or necessary by natural/green families in all situations and therefore will not be utilized in all natural/green burials. **Arterial**, then, if and when needed, will be accepted by some natural green burial families, but not by all, as an acceptable treatment for solving what would otherwise require a non-viewable, closed casket situation.

The **HIERARCHY OF USE**, therefore, can be seen. **Compound** and **Topical** have practical and universal usages in natural/green burials and will never be viewed as unnatural or unnecessary. **Cavity** will occupy a middle ground where a minimal and least invasive treatment will be accepted and utilized as a reasonable compromise by a large percentage of natural/green families. The least adopted and requested procedure in natural/green burials will be a full and complete embalming operation that involves **Arterial** injection as a mandatory part. Therefore, prioritize your thinking and your Ecobalming strategy based on these facts and considerations.

The **FOUR PROBLEMS**, therefore, have **FOUR SOLUTIONS** all possible with **ENIGMA ECOBALMING FOURTH GENERATION CHEMICALS** from **THE CHAMPION COMPANY**, helping to **SECURE** the future of the industry with safe, effective, alternative products for the 21st century embalmer.

Following, then, is a definitive, indepth guide to 21st Century Ecobalming practices, procedures and products with commentary on approved and prohibited chemicals and paraphenalia, presented in a classic format that covers all Ecobalming scenarios.

ECOBALMING BEST PRACTICES

PRE~INJECTION:

APPROVED practices include body cleansing with mild, gentle soaps (**CHAMPION SURGICAL**) and use of **ENIGMA TOPICAL** for overall body sanitation, deodorizing and orifice treatment, followed by packing with natural organic fiber cotton. Hair cleansing is done with mild, gentle shampoo. Mouth closure is accomplished by the suture method with natural cotton/linen thread and feature setting/dental replacement being done using cotton and **CHAMPION PUTTY**. Eye closure is done using **CHAMPION STET** for eyelid adherence.

PROHIBITED practices and products include wire mouth closures, plastic/metal wire mouth formers, plastic eyecaps, and plastic AV closures. In addition, all drywash solvents, acetones or alcohol solvents, strong disinfectant sprays, bleach-based chemicals or kerosene/gasoline/hexane type chemicals for infestation are not allowed.

ARTERIAL INJECTION:

APPROVED practices include arterial injection with **ENIGMA ARTERIAL** and **ENIGMA CAVITY** as a power-booster to enhance Ecobalming action of the arterial injection.

PROHIBITED products include all traditional arterials, co-injects, humectants, buffers, additives, dyes and other accessory chemicals used for traditional arterial injection.

CAVITY TREATMENT:

APPROVED practices include **ENIGMA CAVITY** injection with/or without aspiration followed by trocar closure with natural cotton thread suturing.

PROHIBITED products include all traditional cavity chemicals, plastic trocar buttons and glues/sealers for closure.

SURFACE/HYPO TREATMENT:

APPROVED practices include surface packing with **ENIGMA TOPICAL**, **ENIGMA CAVITY** or **ENIGMA ARTERIAL** full-strength to maximize localized Ecobalming action. Hypo injection may also be done using all the above mentioned **ENIGMA** chemicals for enhanced Ecobalming action.

PROHIBITED products include all traditional embalming chemicals, including liquids or gels and traditional bleaching, cauterizing, or drying chemicals.

AUTOPSY TREATMENT:

APPROVED practices include use of **ENIGMA CAVITY** for Ecobalming action on viscera/cavity area by immersion packing or hypo injection. Treatment and drying/filling of cavity with **ENIGMA COMPOUND** and natural organic cotton, if extra bulk is needed. Calvarium attachment using natural heavy cotton thread followed by **CHAMPION PUTTY** application. All suturing with natural cotton/linen thread and use of **CHAMPION IN-SEAL ULTRA** as an incision sealer/drying agent.

PROHIBITED products include all traditional cavity chemicals including autopsy/hardening/drying compounds which contain paraformaldehyde/mothballs/wood materials and other powders. In addition, all suture sealers, spray or paint-on glues, synthetic rayon/nylon sutures or metal/plastic staplings and plastic/metal skull clamps or wire attachments is not allowed.

POST-EMBALMING:

APPROVED practices include liberal use of **CHAMPION IN-SEAL ULTRA** and natural cotton/linen thread for all incision closures. Packing of orifices with natural organic cotton and use of **ENIGMA COMPOUND** in cotton undergarments and **ENIGMA COMPOUND** as a leak-absorbing bed comprised of natural cotton bed sheeting or pillows.

PROHIBITED products include synthetic nylon/rayon thread and all suture sealers and spray/paint on glues. In addition, all autopsy/hardening/drying compounds and all traditional wound/incision fillers and plastic A/V closures and plastic leak protection garments are not allowed.

COSMETIC/RESTORATIVE TREATMENT:

APPROVED practices include natural aloe/water-based cosmetics (**CHAMPION CLASSIC LINE**) and localized fine-gauge hypo-injection of **ENIGMA TOPICAL** for tissue-filling. **CHAMPION PUTTY** can be utilized as a wound filler base for restorative work.

PROHIBITED products include traditional tissue-builders, drywash solvents or toluene-type thinners for cosmetics. Petrochemical-based mortuary greasepaint cosmetics, spray restorative cosmetic paints, traditional wound fillers and mortuary waxes should not be used. Also not allowed is plastic or metal implants, dowel rods or plastic PVC pipe for extensive surface reconstruction or long bone replacement.

IN SUMMARY: Please consult the appropriate Product Data Sheets for **ENIGMA TOPICAL, ENIGMA COMPOUND, ENIGMA CAVITY** and **ENIGMA ARTERIAL** for more clarification of usages and recommended procedures during Ecobalming with these chemicals. Safe and effective post-mortem preparation of bodies can be easily accomplished by the implementation of Champion's Fourth Generation **ENIGMA** Ecobalming chemicals and products along with commonsense and reasonable alternative techniques, materials and procedures. The result being an embalming/post-mortem procedure that is desirable, acceptable and reasonable for families desiring natural/green burial or ecocremation/disposition. Welcome to the future of embalming.