Safety Data Sheet
Monarch Hardening Compound

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1. Identification

1.1. Product identifier

Product Identity	Monarch Hardening Compound
Alternate Names	Monarch Hardening Compound

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	Autopsy Compound

1.3. Details of the supplier of the safety data sheet

Company Name	Monarch Resources 210 N East St. Arlington, TX 76013
Emergency Telephone No.	817-265-4535

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Acute Tox. 5;H303	May be harmful if swallowed. (Not adopted by US OSHA)
Skin Irrit. 2;H315	Causes skin irritation.
Eye Dam. 1;H318	Causes serious eye damage.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Carc. 2;H351	Suspected of causing cancer.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Danger

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H303 May be harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.

[Prevention]:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.
[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P308+313 IF exposed or concerned: Get medical advice / attention.
P310 Immediately call a POISON CENTER or doctor / physician.
P312 Call a POISON CENTER or doctor / physician if you feel unwell.
P321 Specific treatment (see information on this label).
P333+313 If skin irritation or a rash occurs: Get medical advice / attention.
P362 Take off contaminated clothing and wash before reuse.
P363 Wash contaminated clothing before reuse.
[Storage]:

P405 Store locked up.
[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

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3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Structo-Lite Plaster **CAS Number: Proprietary**	**25 - 50**	**Not Classified**	**[1][2]**
Paraformaldehyde **CAS Number: 0030525-89-4**	**10 - 25**	**Flam. Sol. 2;H228** **Acute Tox. 4;H302** **Acute Tox. 4;H332** **Skin Irrit. 2;H315** **Skin Sens. 1;H317** **Eye Dam. 1;H318** **STOT SE 3;H335** **Carc. 2;H351** **Aquatic Acute 3;H402**	**[1]**

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If the person is conscious, induce vomiting immediately by giving 2 glasses of water and pressing finger down the throat. Repeat until vomit is clear, then give milk. Contact a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Overview Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.
INHALATION: Highly irritating to upper respiratory tract. May cause inflammation to lining of nose, throat, and lungs, with bronchopneumonia and edema possible from extreme

irritating exposure.
SKIN: Contact with dust can cause reddening and swelling. Prolonged and repeated contact causes a hardening or tanning effect. May cause contact allergic dermatitis.
EYE CONTACT: Exposure to high vapor concentrations or contact with liquid causes tearing and severe irritation. Contact with liquid causes severe burns.
INGESTION: Poisonous if swallowed. Causes severe irritation to mouth, throat, and stomach. Severe stomach pains will follow with possible loss of consciousness. Blindness or death may occur.
See section 2 for further details.

Eyes	Causes serious eye damage.
Skin	May cause an allergic skin reaction. Causes skin irritation.
Ingestion	May be harmful if swallowed. (Not adopted by US OSHA)

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO_2, powder, water spray.
Do not use: water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Extreme temperatures can cause Na2O, NF and F.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Oxidizing chemicals may accelerate the burning rate in fire situation.

Wear full fire fighting turnout gear & NIOSH approved self contained breathing apparatus.

ERG Guide No. 133

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

If spilled, steps should be taken to contain spill. Clean area of spill immediately. Follow protective measures provided under Control Measures in Section 10.

Clean up solid/liquid material carefully. Remove absorbent material to a chemical disposal area.

7. Handling and storage

7.1. Precautions for safe handling

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Avoid contact with eyes and skin and inhalation of vapors, mists, and fumes. Avoid direct sunlight. Avoid heat, flames, sparks, and other ignition sources.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Store in a cool dry place.

Incompatible materials: Avoid contact with strong oxidizers, strong alkalies, strong mineral acids, phenol and urea.

For best product performance store in cool, dry area.
Keep out of the reach of children.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0030525-89-4	Paraformaldehyde	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	75 ppm (TWA), 110 ppm (STEL), 10 ppm (TLV-TWA)
Proprietary	Structo-Lite Plaster	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	TWA: 10 mg/m3STEL: 20 mg/m3
		NIOSH	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		Supplier	No Established Limit

The exposure limits for nuisance dust are: OSHA PEL: 15 mg/m3 (50 mppcf*) TWA, ACGIH 10 mg/m3.

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Carcinogen Data

CAS No.	Ingredient	Source	Value
0030525-89-4	Paraformaldehyde	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
Proprietary	Structo-Lite Plaster	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory Single use dust respirator

Eyes Protective safety glasses recommended

Skin Protective gloves recommended.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance White free flowing Solid

Odor Strong pungent formaldehyde

Odor threshold Not determined

pH Not Measured

Melting point / freezing point Not Measured

Initial boiling point and boiling range Does not boil. Gives off formaldehyde gas when heated.

Flash Point 180 Deg F

Evaporation rate (Ether = 1) Not Measured

Flammability (solid, gas) Not Applicable

Upper/lower flammability or explosive limits **Lower Explosive Limit:** 7%
Upper Explosive Limit: 73%

Vapor pressure (Pa) 5.0 mm Hg

Vapor Density (Air=1): Ponnaldehyde=1.04 Water=0.62, Methanol=1.11

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Specific Gravity	(H2=1): 0.81-0.84 gm/cm3 @20 Deg C (68 Deg F)
Solubility in Water	Slowly in cold water @ 20 Deg C
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Temperatures above 100 Deg F, sparks, flame

10.5. Incompatible materials

Avoid contact with strong oxidizers, strong alkalies, strong mineral acids, phenol and urea.

10.6. Hazardous decomposition products

Extreme temperatures can cause Na2O, NF and F.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Structo-Lite Plaster - (Proprietary)	No data available	No data available	No data available	No data available	No data available
Paraformaldehyde - (30525-89-4)	592.00, Rat - Category: 4	10,000.00, Rat - Category: NA	No data available	1.10, Rat - Category: 4	No data available

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Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	5	May be harmful if swallowed. (Not adopted by US OSHA)
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	2	Suspected of causing cancer.
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Structo-Lite Plaster - (Proprietary)	Not Available	Not Available	Not Available
Paraformaldehyde - (30525-89-4)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	UN2213	UN2213	UN2213
14.2. UN proper shipping name	UN2213, Paraformaldehyde, 4.1, III	Paraformaldehyde	Paraformaldehyde
14.3. Transport hazard class(es)	**DOT Hazard Class:** 4.1	**IMDG:** 4.1 **Sub Class:** Not Applicable	**Air Class:** 4.1
14.4. Packing group	III	III	III

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	D2A E

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US EPA Tier II Hazards

Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and RQs (lbs):

Paraformaldehyde (1,000.00)

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Paraformaldehyde

Structo-Lite Plaster

Pennsylvania RTK Substances (>1%):

Paraformaldehyde

Structo-Lite Plaster

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H228 Flammable solid.

H302 Harmful if swallowed.

H315 Causes skin irritation.

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H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H402 Harmful to aquatic life.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the user. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any federal, state, or local laws, rules, regulations or ordinances.

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