

Safety Data Sheet

Galena Solution – C1114

SDS Revision Date:

05/24/2017

1. Identification

1.1. Product identifier

Product Identity Galena Solution – Ready-To-Use – C1114
Alternate Names Galena Solution – Ready-To-Use – C1114

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

Intended use Commercial mirroring.

1.3. Details of the supplier of the safety data sheet

Company Name Angel Gilding
1945 Gardner Road
Broadview IL 60155 USA

Emergency

24 hour Emergency Telephone No. 708-383-3340

Customer Service: Angel Gilding 708-383-3340

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Repr. 1;H360 May damage fertility or the unborn child.
STOT RE 2;H373 May cause damage to organs through prolonged or repeated exposure. Specific Target Organs: (Not Available)
Aquatic Chronic 2;H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements



Danger

H360 May damage fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust / fume/ mist / vapors / spray.

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P273 Avoid release to the environment.

P281 Use personal protective equipment as required.

[Response]:

P308+313 IF exposed or concerned: Get medical advice / attention.

P314 Get Medical advice / attention if you feel unwell.

P391 Collect spillage.

[Storage]:

P405 Store locked up.

[Disposal]:

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

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 |
|------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------|-------|
| Lead nitrate CAS Number: 0010099-74-8 | 5 - 10 | Acute Tox. 4;H302 Acute Tox. 4;H332 Repr. 1;H360 STOT RE 2;H373 Aquatic Acute 1;H400 Aquatic Chronic 1;H410 | [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 swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. |

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

| | |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overview | Inhalation: Lead can be absorbed through the respiratory system. Local irritation of bronchia and lungs can occur and, in cases of acute exposure, symptoms such as metallic |
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taste, chest and abdominal pain, and increased lead blood levels may follow. See also Ingestion.

Ingestion: POISON! The symptoms of lead poisoning include abdominal pain and spasms, nausea, vomiting, headache. Acute poisoning can lead to muscle weakness, "lead line" on the gums, metallic taste, definite loss of appetite, insomnia, dizziness, high lead levels in blood and urine with shock, coma and death in extreme cases. Nitrates entering the body by any route (ingestion, inhalation, or absorption), can cause headache vomiting, dizziness, cyanosis, decreased blood pressure, and possibly respiratory paralysis.

Skin Contact: Lead and lead compounds may be absorbed through the skin on prolonged exposure; the symptoms of lead poisoning described for ingestion exposure may occur. Contact over short periods may cause local irritation, redness and pain.

Eye Contact: Absorption can occur through eye tissues but the more common hazards are local irritation or abrasion.

Chronic Exposure: Lead is a cumulative poison and exposure even to small amounts can raise the body's content to toxic levels. The symptoms of chronic exposure are like those of ingestion poisoning; restlessness, irritability, visual disturbances, hypertension and gray facial color may also be noted.

Aggravation of Pre existing Conditions: Persons with pre-existing kidney, nerve or circulatory disorders or with skin or eye problems may be more susceptible to the effects of this substance. See section 2 for further details.

5. Fire-fighting measures

5.1. Extinguishing media

Use any means suitable for extinguishing surrounding fire. Do not allow water runoff to enter sewers or waterways.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Toxic metal fumes may form when heated to decomposition.

Do not breathe dust / fume/ mist / vapors / spray.

5.3. Advice for fire-fighters

Not combustible but is a hazardous oxidizing material. In contact with easily oxidizable substances may cause ignition, violent combustion or explosion. Increases the flammability of combustible materials.

Strong oxidants may explode when shocked, or if exposed to heat, flame, or friction. Also may act as initiation source for dust or vapor explosions.

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Lead nitrate can decompose to form toxic oxides of nitrogen and lead in fire situations.

ERG Guide No. ---

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.

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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

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

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

7.2. Conditions for safe storage, including any incompatibilities

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Store separately from reactive or combustible materials, and out of direct sunlight. Isolate from incompatible substances. Areas in which exposure to lead metal or lead compounds may occur should be identified by signs or appropriate means, and access to the area should be limited to authorized persons. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Incompatible materials: Ammonium thiocyanate, powdered carbon, lead hypophosphite, hydrogen peroxide, combustibles and organic materials.

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 |
|--------------|--------------|----------|----------------------|
| 0010099-74-8 | Lead nitrate | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |

8.2. Exposure controls

Respiratory

If the exposure limit is exceeded and engineering controls are not feasible, a half-face high efficiency particulate respirator (NIOSH type N100 filter) may be worn for up to ten times

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the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece high efficiency particulate respirator (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

| | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eyes | Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area. |
| 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 | Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. 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.

9. Physical and chemical properties

| | |
|--------------------------------------------------------|------------------------------------------------------------------------------------------|
| Appearance | Clear, Colorless Liquid |
| Odor | Odorless |
| Odor threshold | Not determined |
| pH | 4 |
| Melting point / freezing point | 0 °C |
| Initial boiling point and boiling range | 100 °C |
| Flash Point | Not Measured |
| Evaporation rate (Ether = 1) | Not Measured |
| Flammability (solid, gas) | Not Applicable |
| Upper/lower flammability or explosive limits | Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured |
| Vapor pressure (Pa) | Not Measured |
| Vapor Density | Not Measured |
| Specific Gravity | Not Measured |
| Solubility in Water | Complete |
| Partition coefficient n-octanol/water (Log Kow) | Not Measured |
| Auto-ignition temperature | Not Measured |
| Decomposition temperature | Not Measured |
| Viscosity (cSt) | Not Measured |

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Density

1 (g cm-3)

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

Heat, flames, ignition sources and incompatibles.

10.5. Incompatible materials

Ammonium thiocyanate, powdered carbon, lead hypophosphite, hydrogen peroxide, combustibles and organic materials.

10.6. Hazardous decomposition products

Toxic metal fumes may form when heated to decomposition.

11. Toxicological information

Acute toxicity

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).

| 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 |
|-----------------------------|-------------------|-------------------|---------------------------------|-------------------------------------|--------------------------|
| Lead nitrate - (10099-74-8) | No data available | No data available | No data available | No data available | No data available |

Carcinogen Data

| CAS No. | Ingredient | Source | Value |
|--------------|--------------|--------|---------------------------------------------------------------------|
| 0010099-74-8 | Lead nitrate | OSHA | Regulated Carcinogen: No |
| | | NTP | Known: No; Suspected: Yes |
| | | IARC | Group 1: No; Group 2a: Yes; Group 2b: No; Group 3: No; Group 4: No; |

| Classification | Category | Hazard Description |
|-----------------------------|----------|--------------------|
| Acute toxicity (oral) | --- | Not Applicable |
| Acute toxicity (dermal) | --- | Not Applicable |
| Acute toxicity (inhalation) | --- | Not Applicable |
| Skin corrosion/irritation | --- | Not Applicable |

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| | | |
|-------------------------------|-----|--------------------------------------------------------------------|
| Serious eye damage/irritation | --- | Not Applicable |
| Respiratory sensitization | --- | Not Applicable |
| Skin sensitization | --- | Not Applicable |
| Germ cell mutagenicity | --- | Not Applicable |
| Carcinogenicity | --- | Not Applicable |
| Reproductive toxicity | 1 | May damage fertility or the unborn child. |
| STOT-single exposure | --- | Not Applicable |
| STOT-repeated exposure | 2 | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | --- | Not Applicable |

12. Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

| Ingredient | 96 hr LC50 fish, mg/l | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|-----------------------------|--------------------------|-------------------------------|----------------------|
| Lead nitrate - (10099-74-8) | 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

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| | DOT (Domestic Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA |
|-------------------------------------------|------------------------------------------|-----------------------------------------------------------------|----------------------------------|
| 14.1. UN number | Not Applicable | Not Regulated | Not Regulated |
| 14.2. UN proper shipping name | Not Regulated | Not Regulated | Not Regulated |
| 14.3. Transport hazard class(es) | DOT Hazard Class: Not Applicable | IMDG: Not Applicable Sub Class: Not Applicable | Air Class: Not Applicable |
| 14.4. Packing group | Not Applicable | Not Applicable | Not Applicable |
| 14.5. Environmental hazards | | | |
| IMDG | Marine Pollutant: Yes; (Lead nitrate) | | |
| 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 1988 Classification | D2A |
| US EPA Tier II Hazards | Fire: No Sudden Release of Pressure: No Reactive: No Immediate (Acute): No Delayed (Chronic): Yes |

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:

Lead nitrate

Proposition 65 - Carcinogens (>0.0%):

Lead nitrate

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.

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16. Other information

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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:

H302 Harmful if swallowed.

H332 Harmful if inhaled.

H360 May damage fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

IMPORTANT NOTE: This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or any process. Final determination of suitability of any material is the sole responsibility of the user.

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