

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 23, 2019

1 Identification

- **Product identifier**
- **Trade name:** Solution A
- **Product code:** 60414
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
 Chondrex, Inc.
 16928 Woodinville-Redmond Rd NE Suite B-101
 Woodinville, WA 98072
 USA
 425-702-6365
 support@chondrex.com
- **Emergency telephone number:**
 ChemTel LLC
 800-255-3924 (North America)
 (+1) 813-248-0585 (International)



2 Hazard(s) identification

- **Classification of the substance or mixture**
 The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements:** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Precautionary statements:** Not regulated.
- **Other hazards**
 Cryallized product is an unstable explosive. Do not allow product to dry out.
 Product reacts with metals to form explosive compounds.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures

- **Components:**

| | | |
|---------|---|--------|
| 88-89-1 | 2,4,6-trinitrophenol | 0.8-1% |
| |  Expl. 1.1, H201  Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 | |

- **Additional information:** For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

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- **After skin contact:**
Immediately rinse with water.
If skin irritation is experienced, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
Blast injury if mishandled.
Gastric or intestinal disorders when ingested.
Methaemoglobinaemia
- **Danger:** Danger of disturbed cardiac rhythm.
- **Indication of any immediate medical attention and special treatment needed:**
No relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No relevant information available.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Product is explosive if allowed to dry out.
Product reacts with metals to form explosive compounds.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:** Cool endangered receptacles with water in flooding quantities.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Isolate area and prevent access.
Ensure adequate ventilation.
Wear protective equipment. Keep unprotected persons away.
For large spills, evacuate area and contact authorities to perform cleanup.
- **Environmental precautions**
Do not allow to enter sewers/ surface or ground water.
In case of seepage into the ground inform responsible authorities.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up**
For small spills, absorb spill with towel, and place towel in impervious container containing plenty of water.
For larger spills, absorb with damp absorbent and transfer into impervious container with plenty of water present.
Mark all containers as "Picric Acid Waste".
Clean the affected area carefully; suitable cleaners are:
Warm water and cleansing agent.

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- Do not allow to dry out.
- Product is explosive if allowed to dry out.
- Dispose of the collected material according to regulations.
- **Reference to other sections**
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
 - Avoid splashes or spray in enclosed areas.
 - Use only in well ventilated areas.
 - Do not allow to dry out.
- **Information about protection against explosions and fires:**
 - Product is explosive if allowed to dry out.
 - Protect from heat.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** Store in a well-ventilated place. Keep cool.
- **Information about storage in one common storage facility:**
 - Store away from oxidizing agents.
 - Do not store together with alkalis (caustic solutions).
 - Store away from metals.
- **Further information about storage conditions:** Prevent from drying out.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**

88-89-1 2,4,6-trinitrophenol

| | |
|---------------|---|
| PEL (USA) | Long-term value: 0.1 mg/m ³ Skin |
| REL (USA) | Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³ Skin |
| TLV (USA) | Long-term value: 0.1 mg/m ³ |
| EL (Canada) | Long-term value: 0.1 mg/m ³ S(D) |
| EV (Canada) | Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³ Skin |
| LMPE (Mexico) | Long-term value: 0.1 mg/m ³ |

- **Exposure controls**

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- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:**



Protective gloves

- **Material of gloves**
Nitrile rubber, NBR
Butyl rubber, BR
Neoprene gloves
Natural rubber, NR

- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment** No special requirements.
- **Risk management measures**
Organizational measures should be in place for all processing activities involving this material. Specialist advice recommended.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form: Liquid
Color: Clear to straw color.

Odor: Characteristic
Odor threshold: Not determined.

pH-value: Acidic
Melting point/Melting range: Not determined.
Boiling point/Boiling range: Not determined.

· **Flash point:** The product is not flammable.

· **Flammability (solid, gaseous):** Not applicable.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

Danger of explosion: Explosive when dry.
 Forms very sensitive explosive metallic compounds.

· **Explosion limits**

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| | |
|---|------------------------------------|
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Oxidizing properties: | Non-oxidizing. |
| · Vapor pressure: | Not determined. |
| · Density: | |
| Relative density: | Not determined. |
| Vapor density: | Not determined. |
| Evaporation rate: | Not determined. |
| · Solubility in / Miscibility with Water: | Soluble |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Other information | No relevant information available. |

10 Stability and reactivity

- Reactivity:**
 - Reacts with oxidizing agents.
 - Reacts with alkali (lyes).
 - Forms very sensitive explosive metallic compounds.
- Chemical stability:** Stable under normal temperatures and pressures.
- Thermal decomposition / conditions to be avoided:** Product is explosive if allowed to dry out.
- Possibility of hazardous reactions**
 - Forms very sensitive explosive metallic compounds.
 - Reacts with oxidizing agents.
 - Reacts with alkali (lyes).
 - Toxic fumes may be released if heated above the decomposition point.
- Conditions to avoid** Prevent from drying out.
- Incompatible materials**
 - Oxidizing agents.
 - Alkalis.
 - Metals.
- Hazardous decomposition products**
 - Nitrogen oxides
 - Carbon monoxide and carbon dioxide

11 Toxicological information

- Information on toxicological effects**
- Acute toxicity:** Based on available data, the classification criteria are not met.
- LD/LC50 values that are relevant for classification:** None.
- Primary irritant effect:**

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- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** Blast injury if mishandled.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

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| | |
|--------------------------------|----------------|
| · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
|--------------------------------|----------------|

| | |
|--|----------------|
| · UN proper shipping name · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
|--|----------------|

| | |
|--|----------------|
| · Transport hazard class(es) · DOT, ADR/RID/ADN, IMDG, IATA · Class | Not regulated. |
|--|----------------|

| | |
|--|----------------|
| · Packing group · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
|--|----------------|

| | |
|---|----|
| · Environmental hazards · Marine pollutant: | No |
|---|----|

| | |
|---------------------------------------|-----------------|
| · Special precautions for user | Not applicable. |
|---------------------------------------|-----------------|

| | |
|--|-----------------|
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
|--|-----------------|

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

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| · Section 302 (extremely hazardous substances): |
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|-------------------------------------|
| None of the ingredients are listed. |
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| · Section 355 (extremely hazardous substances): |
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| None of the ingredients are listed. |
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| · Section 313 (Specific toxic chemical listings): |
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| |
|--------------------------------|
| 88-89-1 2,4,6-trinitrophenol |
|--------------------------------|

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| · TSCA (Toxic Substances Control Act) |
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| All ingredients are listed or exempt. |
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|--------------------------------------|
| · Proposition 65 (California) |
|--------------------------------------|

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|---|
| · Chemicals known to cause cancer: |
|---|

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| None of the ingredients are listed. |
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|---|
| · Chemicals known to cause developmental toxicity for females: |
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| None of the ingredients are listed. |
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|---|
| · Chemicals known to cause developmental toxicity for males: |
|---|

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|-------------------------------------|
| None of the ingredients are listed. |
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| |
|---|
| · Chemicals known to cause developmental toxicity: |
|---|

| |
|-------------------------------------|
| None of the ingredients are listed. |
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|---|
| · EPA (Environmental Protection Agency): |
|---|

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None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed or exempt.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Expl. 1.1: Explosives – Division 1.1

Acute Tox. 3: Acute toxicity – Category 3

· SourcesWebsite, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor-internet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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