SAFETY DATA SHEET

1. IDENTIFICATION

Product code: AN126
Product Name: DITHRANOL, BP

Other means of identification
Synonyms:
1,8-Dihydroxy-9-anthrone; Dithranol; 1,8,9-Anthracenetriol; 9(10H)-Anthracenone, 1,8-dihydroxy-Antra-Derm Anthralin Batridol Chrysodermol Cignolin Cigthranol Psoriacid-Stift

CAS #: 1143-38-0
RTECS # CB8927000
Ci#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: No information available.
Uses advised against: No information available

Supplier: Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA  90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Specific target organ toxicity</td>
<td>Category 3</td>
</tr>
</tbody>
</table>
**Label elements**

**Warning**

**Hazard statements**
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation

**Hazards not otherwise classified (HNOC)**
Not Applicable

**Other hazards**
Not available

**Precautionary Statements - Prevention**
Wear protective gloves
Wear eye/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**
*Specific treatment (see .? on this label)*
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**Precautionary Statements - Storage**
Store in a well-ventilated place. Keep container tightly closed
Store locked up

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
<th>Trade Secret</th>
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</thead>
<tbody>
<tr>
<td>Anthralin</td>
<td>1143-38-0</td>
<td>100</td>
<td>*</td>
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</table>

### 4. FIRST AID MEASURES

**First aid measures**

**General Advice:** Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)

**Product code:** AN126  **Product name:** DITHRANOL, BP
4. FIRST AID MEASURES

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed
Symptoms Causes serious eye irritation. Causes skin irritation. May cause irritation of respiratory tract.

Indication of any immediate medical attention and special treatment needed
Notes to Physician: Treat symptomatically

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media: Dry chemical. Carbon dioxide (CO2). Water spray mist or foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical
Hazardous Combustion Products: Carbon oxides
Specific hazards: May be combustible at high temperatures. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

Special Protective Actions for Firefighters
Specific Methods: No information available.
Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Avoid dust formation. Remove all sources of ignition. All equipment used when handling the product must be grounded.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Use appropriate tools to put the spilled solid in a suitable waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Remove all sources of ignition. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe vapours/dust. Do not ingest. Do not smoke. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Sensitive to light. Store in light-resistant containers. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store away from incompatible materials.

Incompatible Materials:
Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
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Canada

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<tr>
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Australia and Mexico

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<tr>
<th>Components</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
</table>

Product code: AN126  Product name: DITHRANOL, BP
Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Safety glasses with side-shields
Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.
Respiratory protection: Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES
9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Solid
**Appearance:** Crystals. Powder.
**Color:** Yellow.
**Odor:** No information available
**Taste:** No information available
**Formula:** C14H10O3
**Flammability:** No information available
**Flashpoint (°C/°F):** No information available.
**Flash Point Tested according to:** No information available
**Lower Explosion Limit (%):** No information available
**Upper Explosion Limit (%):** No information available
**Melting point/range(°C/°F):** 178°-181°C/352°-358°F
**Boiling point/range(°C/°F):** No information available
**Decomposition temperature(°C/°F):** No information available
**Density (g/cm3):** No information available
**Vapor pressure @ 20°C (kPa):** No information available
**Evaporation rate:** No information available
**VOC content (g/L):** No information available
**Odor threshold (ppm):** No information available
**Viscosity:** No information available
**Miscibility:** No information available
**Solubility:** Very slightly soluble in Acetone
Insoluble in water
Soluble in Methylene Chloride
Slightly soluble in alcohol
It dissolves in dilute solutions of alkali hydroxides
**Flashpoint (°C/°F):** No data available
**Autoignition Temperature (°C/°F):** No information available
**Appearance:** Crystals. Powder.
**Melting point/range(°C/°F):** 178°-181°C/352°-358°F
**Boiling point/range(°C/°F):** No information available
**Decomposition temperature(°C/°F):** No information available
**Density (g/cm3):** No information available
**Vapor pressure @ 20°C (kPa):** No information available
**Evaporation rate:** No information available
**VOC content (g/L):** No information available
**Odor threshold (ppm):** No information available
**Viscosity:** No information available
**Miscibility:** No information available
**Solubility:** Very slightly soluble in Acetone
Insoluble in water
Soluble in Methylene Chloride
Slightly soluble in alcohol
It dissolves in dilute solutions of alkali hydroxides
**Flashpoint (°C/°F):** No data available
**Autoignition Temperature (°C/°F):** No information available

10. STABILITY AND REACTIVITY

**Reactivity**
Reactive with oxidizing agents

**Chemical stability**
**Stability:** Sensitive to light. Exposure to light accelerates decomposition. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Incompatible materials. Exposure to light.

**Incompatible Materials:** Oxidizing agents.

**Hazardous decomposition products:** Carbon oxides.

**Other Information**
**Corrosivity:** Non-corrosive in the presence of glass

**Special Remarks on Corrosivity:** No information available
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Eyes. Ingestion. Inhalation. Skin.

Acute Toxicity

Component Information

_Anthralin - 1143-38-0_

LD50/oral/rat = 3216 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rat = No information available
LD50/dermal/rabbit = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation. There is little absorption through the skin.

Eye Contact: Causes serious eye irritation.

Inhalation May cause irritation of respiratory tract.
Ingestion May cause digestive/gastrointestinal tract irritation.

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available

Product code: AN126
Product name: DITHRANOL, BP
Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic

<table>
<thead>
<tr>
<th>Components</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
</tr>
</thead>
</table>

Reproductive toxicity: No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure: Respiratory system.

STOT - repeated exposure: No information available

Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products: Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

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<thead>
<tr>
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<tbody>
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Product code: AN126  Product name: DITHRANOL, BP
<table>
<thead>
<tr>
<th>14. TRANSPORT INFORMATION</th>
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<td><strong>DOT</strong></td>
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<td>Hazard Class: No information available</td>
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<tr>
<td>Subsidiary Risk: No information available</td>
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<td>Packing Group: None</td>
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<td>ERG No: No information available</td>
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<td>Marine Pollutant: No data available</td>
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<td>DOT RQ (lbs): No information available</td>
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<td><strong>TDG (Canada)</strong></td>
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<td><strong>IMO / IMDG</strong></td>
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<td>Subsidiary Risk: No information available</td>
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<td>Packing Group: No information available</td>
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<td>IMDG Page: No information available</td>
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<td>Marine Pollutant: No information available</td>
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<td>MFAG: No information available</td>
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<td>Maximum Quantity: No information available</td>
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<td><strong>RID</strong></td>
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<td>Subsidiary Risk: No information available</td>
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<td>Packing Group: No information available</td>
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**Product code:** AN126  **Product name:** DITHRANOL, BP
14. TRANSPORT INFORMATION

Description: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>KOREA KECL</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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<tbody>
<tr>
<td>Anthralin</td>
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<td>Not present</td>
<td>Not present</td>
<td>Not present</td>
<td>Not present</td>
<td>Present</td>
<td>Present 214-538-0</td>
</tr>
</tbody>
</table>

U.S. Regulations


Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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<tbody>
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CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
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<tbody>
<tr>
<td>Anthralin</td>
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U.S. TSCA

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<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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<tbody>
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Canada

WHMIS hazard class:
Non-controlled

Anthralin
Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Product code: AN126 Product name: DITHRANOL, BP
Anthralin

**Inventory**

<table>
<thead>
<tr>
<th>Components</th>
<th>Canada (DSL)</th>
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<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
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<tbody>
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<td>Not listed</td>
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</table>

**EU Classification**

**R-phrase(s)**
not determined (not applicable)
R36/37/38 - Irritating to eyes, respiratory system and skin.

**S-phrase(s)**
S22 - Do not breathe dust.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36 - Wear suitable protective clothing.

<table>
<thead>
<tr>
<th>Components</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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<tbody>
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The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**
Xi - Irritant.

16. OTHER INFORMATION
Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet