Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
Dantrolene, Sodium Salt

STATEMENT OF HAZARDOUS NATURE

SUPPLIER
Company: Santa Cruz Biotechnology, Inc.
Address: 2145 Delaware Ave
Santa Cruz, CA 95060
Telephone: 800.457.3801 or 831.457.3800
Emergency Tel: CHEMWATCH: From within the US and Canada: 877-715-9305
Emergency Tel: From outside the US and Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

PRODUCT USE
Muscle relaxant which acts by blocking muscle contraction beyond the neuromuscular junction. Use for the symptomatic relief of muscle spasm due to conditions such as stroke, multiple sclerosis, spinal cord injury and cerebral palsy. Given by mouth. Also used intravenously for treatment of malignant hypothermia. Inhibitor of Ca2+ release from sarcoplasmic reticulum.

SYNONYMS
C14-H9-N4-Na-O5, "hydantoin, 1-[(5-(p-nitrophenyl)furfurylidene)amino]-, sodium salt", "hydantoin, 1-[[5-(p-nitrophenyl)furfurylidene]amino]-, sodium salt", "dantorolene sodium", "2, 4-imidazolidinedione, 1-[(5-(4-nitrophenyl)-2- furyl)methylene]amino]-, "2, 4-imidazolidinedione, 1-[(5-(4-nitrophenyl)-2-furyl)methylene]amino]-, "sodium salt", "1-[(5-(p-nitrophenyl)furfurylidene)amino]hydantoin sodium", "1-[(5-(p-nitrophenyl)furfurylidene)amino]hydantoin sodium", Dantamacrin, Dantrium, "Dantrix (tetrahydrate)", F-400, "muscle relaxant"

Section 2 - HAZARDS IDENTIFICATION

Canadian WHMIS Symbols

Emergency Overview
Risk
Harmful if swallowed.
Limited evidence of a carcinogenic effect.

Potential Health Effects
Acute Health Effects
SWALLOWED

- Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
- At sufficiently high doses the material may be hepatotoxic (i.e. poisonous to the liver).
- Hydantoin derivatives may damage the stem cell which acts as the precursor to components of the blood and, as a result, produce blood dyscrasias. Most blood cells originate from a single pluripotent stem cell which are present in the circulating blood, but differentiates only in intact bone marrow. When the number stem cells decreases to below 10% of their normal value, pancytopenia (a reduction in the number of red and white blood cells and platelets) develops in the peripheral blood, with a latency period corresponding to the lifetime of the individual blood cells. Granulocytopenia (a reduction in granular leukocytes) develops within days and thrombocytopenia (a disorder involving platelets), within 1–2 weeks, whilst loss of erythrocytes (red blood cells) need months to become clinically manifest. The erythrocyte count reveals 0.8% loss per day, on average, following the complete stop of red blood cell formation. Aplastic anaemia develops due to complete destruction of the stem cells. Hydantoin is cardiotoxic, producing dysrhythmias or other conductance disturbances. Some hydantoin derivatives (such as phenytoin) are able to cross the placenta and are embryotoxic and/or teratogenic.

EYE

- Although the material is not thought to be an irritant, direct contact with the eye may cause transient discomfort characterized by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.

SKIN

- Skin contact is not thought to produce harmful health effects (as classified using animal models). Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
- Open cuts, abraded or irritated skin should not be exposed to this material.
- Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED

- The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified using animal models). Nevertheless, adverse effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
- Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

CHRONIC HEALTH EFFECTS

- There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.
- Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray. In high doses, dantrolene is carcinogenic in some animals.

---

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

### HAZARD RATINGS

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Toxicity</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Body Contact</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Chronic</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Min/Nil=0
Low=1
Moderate=2
High=3
Extreme=4

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>dantrolene sodium</td>
<td>14663-23-1</td>
<td>&gt;98</td>
</tr>
</tbody>
</table>

---

## Section 4 - FIRST AID MEASURES

### SWALLOWED

- IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
  - Where Medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:
  - For advice, contact a Poisons Information Center or a doctor.
  - Urgent hospital treatment is likely to be needed.
  - If conscious, give water to drink.
  - INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

NOTE: Wear a protective glove when inducing vomiting by mechanical means.

- In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.
- If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be provided. Further action will be the responsibility of the medical specialist.
- If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the MSDS.
EYE
■ If this product comes in contact with the eyes:
  * Wash out immediately with fresh running water.
  * Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
  * If pain persists or recurs seek medical attention.
  * Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN
■ If skin or hair contact occurs:
  * Flush skin and hair with running water (and soap if available).
  * Seek medical attention in event of irritation.

INHALED
■
  * If dust is inhaled, remove from contaminated area.
  * Encourage patient to blow nose to ensure clear passage of breathing.
  * If irritation or discomfort persists seek medical attention.

NOTES TO PHYSICIAN
■ for poisons (where specific treatment regime is absent):

BASIC TREATMENT

Establish a patent airway with suction where necessary.
Watch for signs of respiratory insufficiency and assist ventilation as necessary.
Administer oxygen non-rebreather mask at 10 to 15 l/min.
Monitor and treat, where necessary, for pulmonary edema.
Monitor and treat, where necessary, for shock.
Anticipate seizures.
DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

ADVANCED TREATMENT

Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
Positive-pressure ventilation using a bag-valve mask might be of use.
Monitor and treat, where necessary, for arrhythmias.
Start an IV D5W TKO. If signs of hypovolemia are present use lactated Ringers solution. Fluid overload might create complications.
Drug therapy should be considered for pulmonary edema.
Hypotension with signs of hypovolemia requires the cautious administration of fluids. Fluid overload might create complications.
Treat seizures with diazepam.
Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and Currance, P.L.
EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994.
Treat symptomatically.
The stomach should be emptied by aspiration and lavage, and supportive measures employed. Large volumes of fluids should be administered to avoid the theoretical possibility of crystalluria. Dantrolene sodium is incompletely absorbed from the gut. It is hydroxylated and a proportion is reduced to an acetylated amine derivative. About 25% is excreted in the urine mainly as metabolites with a small amount unchanged. 45-50% appears in the bile [Martindale]

Section 5 - FIRE FIGHTING MEASURES

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<thead>
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<th>Property</th>
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<tr>
<td>Vapour Pressure (mmHG)</td>
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<td>Upper Explosive Limit (%)</td>
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</tr>
<tr>
<td>Specific Gravity (water=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Explosive Limit (%)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

EXTINGUISHING MEDIA

* Foam.
* Dry chemical powder.
* BCF (where regulations permit).
* Carbon dioxide.
* Water spray or fog - Large fires only.

FIRE FIGHTING

* Alert Emergency Responders and tell them location and nature of hazard.
* Wear breathing apparatus plus protective gloves.
* Prevent, by any means available, spillage from entering drains or water course.
* Use water delivered as a fine spray to control fire and cool adjacent area.
* DO NOT approach containers suspected to be hot.
* Cool fire exposed containers with water spray from a protected location.
* If safe to do so, remove containers from path of fire.
* Equipment should be thoroughly decontaminated after use.
GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS

- Combustible solid which burns but propagates flame with difficulty.
- Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust may burn rapidly and fiercely if ignited.
- Dry dust can be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport.
- Build-up of electrostatic charge may be prevented by bonding and grounding.
- Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.

Combustion products include: carbon monoxide (CO), carbon dioxide (CO₂), nitrogen oxides (NOₓ), other pyrolysis products typical of burning organic material. May emit poisonous fumes.

FIRE INCOMPATIBILITY
- Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result.

PERSONAL PROTECTION
Glasses:
Chemical goggles.
Gloves:
Respirator:
Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
- Clean up waste regularly and abnormal spills immediately.
- Avoid breathing dust and contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.
- Vacuum up or sweep up. NOTE: Vacuum cleaner must be fitted with an exhaust micro filter (HEPA type) (consider explosion-proof machines designed to be grounded during storage and use).
- Dampen with water to prevent dusting before sweeping.
- Place in suitable containers for disposal.

MAJOR SPILLS
- Moderate hazard.
- CAUTION: Advise personnel in area.
- Alert Emergency Responders and tell them location and nature of hazard.
- Control personal contact by wearing protective clothing.
- Prevent, by any means available, spillage from entering drains or water courses.
- Recover product wherever possible.
- IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal.
- ALWAYS: Wash area down with large amounts of water and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

ACUTE EXPOSURE GUIDELINE LEVELS (AEGL) (in ppm)
AEGL 1: The airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic nonsensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.
AEGL 2: The airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.
AEGL 3: The airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience life-threatening health effects or death.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
Work clothes should be laundered separately.
Launder contaminated clothing before re-use.
Use good occupational work practice.
Observe manufacturer’s storing and handling recommendations.
Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

RECOMMENDED STORAGE METHODS
- Glass container.
- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

STORAGE REQUIREMENTS
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer’s storing and handling recommendations.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS

RECOMMENDED STORAGE METHODS

STORAGE REQUIREMENTS

MATERIAL DATA
DANTROLENE SODIUM:
- Airborne particulate or vapor must be kept to levels as low as is practicably achievable given access to modern engineering controls and monitoring hardware. Biologically active compounds may produce idiosyncratic effects which are entirely unpredictable on the basis of literature searches and prior clinical experience (both recent and past).
PERSONAL PROTECTION

Consult your EHS staff for recommendations

EYE
- When handling very small quantities of the material eye protection may not be required.
- For laboratory, larger scale or bulk handling or where regular exposure in an occupational setting occurs:
  - Chemical goggles
  - Face shield. Full face shield may be required for supplementary but never for primary protection of eyes
  - Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lenses should be removed at the first signs of eye redness or irritation - lenses should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]

HANDS/FEET
- Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:
  - frequency and duration of contact,
  - chemical resistance of glove material,
  - glove thickness and dexterity
- Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739).
  - When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.
  - When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.
  - Contaminated gloves should be replaced.
- Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.
  - Rubber gloves (nitrile or low-protein, powder-free latex). Employees allergic to latex gloves should use nitrile gloves in preference.
  - Double gloving should be considered.
  - PVC gloves.
  - Protective shoe covers.
  - Head covering.
- Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.
  - polychloroprene
  - nitrile rubber
  - butyl rubber
  - fluorocautchouc
  - polyvinyl chloride
- Gloves should be examined for wear and/or degradation constantly.

OTHER
- For quantities up to 500 grams a laboratory coat may be suitable.
- For quantities up to 1 kilogram a disposable laboratory coat or coverall of low permeability is recommended. Coveralls should be buttoned at collar and cuffs.
- For quantities over 1 kilogram and manufacturing operations, wear disposable coverall of low permeability and disposable shoe covers.
- For manufacturing operations, air-supplied full body suits may be required for the provision of advanced respiratory protection.
- Eye wash unit.
- Ensure there is ready access to an emergency shower.
- For Emergencies: Vinyl suit
- Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory . These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Use approved positive flow mask if significant quantities of dust becomes airborne.
- Try to avoid creating dust conditions.

RESPIRATOR

<table>
<thead>
<tr>
<th>Protection Factor</th>
<th>Half-Face Respirator</th>
<th>Full-Face Respirator</th>
<th>Powered Air Respirator</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 x PEL</td>
<td>P1</td>
<td>-</td>
<td>PAPR-P1</td>
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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Solid. Does not mix with water.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Melting Range (°F)</td>
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<tr>
<td>Boiling Range (°F)</td>
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</tr>
<tr>
<td>Flash Point (°F)</td>
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</tr>
<tr>
<td>Decomposition Temp (°F)</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temp (°F)</td>
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</tr>
<tr>
<td>Upper Explosive Limit (%)</td>
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</tr>
<tr>
<td>Lower Explosive Limit (%)</td>
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<tr>
<td>Molecular Weight</td>
<td>399.3 (3.5H2O)</td>
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<tr>
<td>Viscosity</td>
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<tr>
<td>Solubility in water (g/L)</td>
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<tr>
<td>pH (1% solution)</td>
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<td>Vapour Pressure (mmHG)</td>
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<tr>
<td>Specific Gravity (water=1)</td>
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</tr>
<tr>
<td>Relative Vapor Density (air=1)</td>
<td>&gt;1</td>
</tr>
</tbody>
</table>

PHYSICAL PROPERTIES

Solid. Does not mix with water.
**Appearance**
Orange crystalline powder; does not mix well with water. Solubility increases in alkaline solution. Dantrolene sodium hydrolyses and precipitates the extremely insoluble (< 1 mg/l) free acid, dantrolene. This hydrolysis may be prevented to some extent by the addition of small amounts of sodium hydroxide, but this procedure is complicated by the precipitation of dantrolene sodium by the common ion effect. The amount remaining in solution is a function of the total ionic strength.

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**Section 10 - Chemical Stability**

**Conditions Contributing to Instability**
- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerization will not occur.

**Storage Incompatibility**
- Avoid reaction with oxidizing agents.

For incompatible materials - refer to Section 7 - Handling and Storage.

---

**Section 11 - Toxicological Information**

dantrolene sodium

**Toxicity and Irritation**

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>LD50 (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral (woman)</td>
<td>LD50:</td>
<td>600</td>
</tr>
<tr>
<td>Oral (rat)</td>
<td>LD50:</td>
<td>7432</td>
</tr>
<tr>
<td>Intraperitoneal (rat)</td>
<td>LD50:</td>
<td>413</td>
</tr>
<tr>
<td>Subcutaneous (rat)</td>
<td>LD50:</td>
<td>&gt;16000</td>
</tr>
<tr>
<td>Intravenous (rat)</td>
<td>LD50:</td>
<td>&gt;50</td>
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<tr>
<td>Oral (mouse)</td>
<td>LD50:</td>
<td>1188</td>
</tr>
<tr>
<td>Intraperitoneal (mouse)</td>
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</tr>
<tr>
<td>Subcutaneous (mouse)</td>
<td>LD50:</td>
<td>&gt;16000</td>
</tr>
<tr>
<td>Intravenous (mouse)</td>
<td>LD50:</td>
<td>&gt;50</td>
</tr>
<tr>
<td>Oral (dog)</td>
<td>LD50:</td>
<td>&gt;10550</td>
</tr>
</tbody>
</table>

**for dantrolene:**
The major adverse effect is hepatic toxicity, which may be fatal, although this is unlikely in the acute setting. Few side effects have been reported at the recommended dose levels in chronic treatment (muscle rigidity), dantrolene may also cause muscle weakness, drowsiness, dizziness and malaise. Hallucinations, exacerbation of respiratory depression, pleuritis, lymphocytic lymphoma and leucopenia have been reported rarely. When given intravenously, dantrolene solution is highly irritant. Extravasation may cause tissue necrosis.

**Use in pregnancy and lactation**
There is no evidence that dantrolene is harmful when given prophylactically to predisposed mothers before delivery. No adverse effects on the foetus or newborn infant have been reported. Dantrolene crosses the placenta (the fetal:maternal concentration ratio is 0.4:1) and is excreted in breast milk. It would be prudent to avoid breast feeding if dantrolene were being taken for prophylaxis or treatment.

Somnolence, anorexia, nausea/vomiting, diffuse hepatocellular necrosis, maternal effects, specific developmental abnormalities (musculoskeletal system), effects on newborn.

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**Section 12 - Ecological Information**

Refer to data for ingredients, which follows:

**DANTROLENE SODIUM:**
- DO NOT discharge into sewer or waterways.

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**Section 13 - Disposal Considerations**

**Disposal Instructions**
All waste must be handled in accordance with local, state and federal regulations.
- Puncture containers to prevent re-use and bury at an authorized landfill.
- Legislation addressing waste disposal requirements may differ by country, state and/or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.
- A Hierarchy of Controls seems to be common - the user should investigate:
  - Reduction
  - Reuse
  - Recycling
  - Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change.
DO NOT allow wash water from cleaning equipment to enter drains. Collect all wash water for treatment before disposal.

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult Waste Management Authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: Burial in a licensed land-fill or Incineration in a licensed apparatus (after admixture with suitable combustible material)
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 - TRANSPORTATION INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: DOT, IATA, IMDG

Section 15 - REGULATORY INFORMATION

dantrolene sodium (CAS: 14663-23-1,24868-20-0) is found on the following regulatory lists;
"US - Hawaii Air Contaminant Limits","US - Oregon Permissible Exposure Limits (Z3)","US OSHA Permissible Exposure Levels (PELs) - Table Z3"

Section 16 - OTHER INFORMATION

Ingredients with multiple CAS Nos

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS</th>
</tr>
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<tbody>
<tr>
<td>dantrolene sodium</td>
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- Classification of the mixture and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.
- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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