

Safety Data Sheet



Bristol-Myers Squibb Company

1. IDENTIFICATION													
<i>Product Information</i>													
Product name	LYSODREN® (mitotane) Tablets, 500 mg												
Version	1.0, 25.02.2014												
Jurisdiction	This Safety Data Sheet was prepared in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) for the United States of America (USA) (CFR 1910.1200), European Union (EU) (EC 1272/2008) and United Nations (UN). The following countries utilize the UN GHS classification process: Mexico, Brazil, China, New Zealand, Canada, Japan, Korea and Australia.												
Active substance	Mitotane												
Synonyms	MJ-7236; CB-313; NSC-38721; Lisodren; Lysodren; Opeprim; o,p'-DDD; o,p'-Dichlorodiphenyldichloroethane; o,p'-TDE; Mitotane; Mitotane Tablets												
Intended Uses	This material is a finished drug product for patient use. It is used in the treatment of cancer.												
<i>Company/Undertaking Identification</i>													
Address	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><u>USA</u></td> <td style="width: 33%;"><u>Ireland</u></td> </tr> <tr> <td>Bristol-Myers Squibb Company</td> <td>Bristol-Myers Squibb Company</td> </tr> <tr> <td>P.O. Box 191</td> <td>Swords Laboratories, Watery Lane</td> </tr> <tr> <td>New Brunswick, New Jersey 08903</td> <td>Swords, Ireland</td> </tr> <tr> <td>United States of America</td> <td>MG-GBS-MSDS-Request@bms.com</td> </tr> <tr> <td>1-800-332-2056</td> <td>353-1813-9456</td> </tr> </table>	<u>USA</u>	<u>Ireland</u>	Bristol-Myers Squibb Company	Bristol-Myers Squibb Company	P.O. Box 191	Swords Laboratories, Watery Lane	New Brunswick, New Jersey 08903	Swords, Ireland	United States of America	MG-GBS-MSDS-Request@bms.com	1-800-332-2056	353-1813-9456
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1-800-332-2056	353-1813-9456												
Emergency Phone Number	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">USA (also Canada, Puerto Rico and the Virgin Island): 1-800-424-9300</td> <td style="width: 33%;"><u>Ireland</u>: 353-1813-9456</td> </tr> <tr> <td colspan="2">Other Countries: See "Section 16" for country-specific emergency phone numbers from CHEMTREC.</td> </tr> </table>	USA (also Canada, Puerto Rico and the Virgin Island): 1-800-424-9300	<u>Ireland</u> : 353-1813-9456	Other Countries: See "Section 16" for country-specific emergency phone numbers from CHEMTREC.									
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Other Countries: See "Section 16" for country-specific emergency phone numbers from CHEMTREC.													

2. HAZARDS IDENTIFICATION	
Classification and Labelling Common to All Jurisdictions	
Classification	Carcinogenicity - Category 2 Toxic To Reproduction - Developmental Toxicity - Category 1B Effects on or via lactation Specific Target Organ Systemic Toxicity (Single Exposure) - Category 3 Specific Target Organ Systemic Toxicity (Repeated Exposure) - Category 1 Hazardous To The Aquatic Environment - Acute Hazard - Category 1 Hazardous To The Aquatic Environment - Chronic Hazard - Category 1
Symbol	
Signal Word	Danger
Hazard Statements	Suspected of causing cancer. May damage the unborn child (developmental toxicity). May cause harm to breast-fed children.

2. HAZARDS IDENTIFICATION	
	<p>May cause respiratory irritation . Causes damage to organs (adrenal glands, central nervous system, skin, eyes) through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.</p>
Precautionary Statements	<p>Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.</p>

3. COMPOSITION/INFORMATION ON INGREDIENTS					
Components	Concentration	CAS-No.	EU only		
			EINECS/ELINCS/REACH Registration Number	Symbol(s)/R-phrase(s)	H-code(s)
<i>Hazardous components</i>					
Mitotane	62 %	53-19-0	200-166-6	T, N: R40, R48, R50/53, R61, R64	H351 H360D H362 H372 H400/M=100 H410/M=100
Microcrystalline Cellulose	< 35 %	9004-34-6	232-674-9	Xi: R37	H335
<i>Other ingredients</i>					
Non-Hazardous Ingredients	< 10 %	Not available	--	--	--
See section 16 for Symbol, R-phrase and H-code text.					

4. FIRST AID MEASURES	
Eye contact	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. If exposed or concerned: Get medical attention/advice.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Discard contaminated clothing or wash before re-use. If exposed or concerned: Get medical attention/advice.
Inhalation	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.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention/advice if you feel unwell.
Notes to Physician	This product has been reported to interact with the following medications: CNS depressants, certain vaccines. Refer to Section 11.

4. FIRST AID MEASURES

Medical Surveillance	<p>The need for a pre-placement physical examination and history for employees with potential exposure to this compound is to be evaluated by a physician that is thoroughly knowledgeable about both the toxicity of this compound and the extent of work place exposure. Baseline testing would include: a blood test for kidney function, a complete blood count with differential. Based on opportunity for exposure and duration of exposure a periodic follow-up examination may be considered. It is recommended that the content be similar to the pre-placement exam.</p> <p>Employees who are pregnant, are breast-feeding, or who are concerned with other reproductive issues should be encouraged to consult with the occupational health physician monitoring worker's health.</p>
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5. FIRE-FIGHTING MEASURES

Flammable Properties	Not readily combustible
Extinguishing Media	<p>Suitable extinguishing media: Dry chemical, Water spray, Foam</p> <p>Unsuitable extinguishing media: Do NOT use water jet.</p>
Protection of Firefighters	<p>Specific hazards: Respiratory Irritant Developmental toxicant</p> <p>Protective equipment: Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus.</p> <p>Hazardous Combustion Products: carbon oxides (COx), silicone oxides, and, gaseous hydrogen chloride (HCl).</p> <p>Further Information: HCl gas can form flammable or explosive mixtures with alcohols or metals. In the event of fire and/or explosion do not breathe fumes.</p>
Other information	Decontaminate protective clothing and equipment before reuse.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Refer to protective measures listed in sections 7 and 8. Use personal protective equipment. Examples include tightly fitting safety goggles, disposable lab coat of low permeability with cuffs, double gloves and shoe covers. Wear respiratory protection. Depending on the nature of the spill (quantity and extent of spill) additional protective clothing and equipment such as a self-contained breathing apparatus may be needed.
Environmental precautions	Prevent release to drains and waterways. Prevent release to the environment.
Containment Methods	Wet down any dust to prevent generation of aerosols, if appropriate. Cover with suitable material.
Cleanup Methods	Spill prevention procedures and a spill response procedure should be implemented. Contain and collect spillage and place in container for disposal according to local regulations (see Section 13). Clean spill area with a deactivating solution (if available) followed by detergent and water after spill pick-up. Handle waste materials, including gloves, protective clothing, contaminated spill cleanup material, etc., as appropriate for chemically and pharmacologically similar materials.

7. HANDLING AND STORAGE

Handling Precautions	Highly potent material. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. When handling broken or crushed tablets or capsules, ensure worker exposure is below the recommended exposure limit. Keep away from heat and sources of ignition. Prevent release to drains and waterways.
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7. HANDLING AND STORAGE

Container Requirements	FOR MANUFACTURING PROCESSES (BULK): Store in sturdy containers appropriate to maintain the integrity of this material for its intended use. FOR CLINICAL SETTING USE (DRUG PRODUCT): Store in the original primary packaging as provided.
Storage Conditions	FOR MANUFACTURING PROCESSES (BULK): and FOR CLINICAL SETTING USE (DRUG PRODUCT): Store at 25°C. Excursions permitted to 15° - 30°C. Protect against light. Keep away from heat, sparks and flames.
Specific use(s)	Refer to Section 1

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)	Company Guideline	ACGIH	Germany OEL	UK MEL
Mitotane	1 - < 10 µg/m3 (ECB 4 - For BMS Internal Use Only)	--	--	--
Microcrystalline Cellulose		10 mg/m3 TWA	--	--
Corn Starch		10 mg/m3 TWA	--	--
Polyethylene Glycol 3350		--	1,000 mg/m3 TWA inhalable fraction 8,000 mg/m3 Peak inhalable fraction, average molecular weight 200-600 1,000 mg/m3 MAK inhalable fraction, average molecular weight 200-600	--
Silicon Dioxide Amorphous		--	0.3 mg/m3 TWA	--
Microcrystalline Cellulose	Occupational Exposure Limits have been established by: - Belgium - Switzerland - Estonia - Spain - France - Ireland - Portugal			
Corn Starch	Occupational Exposure Limits have been established by: - Belgium - Switzerland - Czech Republic - Spain - Greece - Ireland - Portugal			
Polyethylene Glycol 3350	Occupational Exposure Limits have been established by: - Austria - Switzerland - The Netherlands			
Silicon Dioxide Amorphous	Occupational Exposure Limits have been established by: - Austria - Switzerland - Denmark - Spain - Ireland - Portugal			
Recommended Industrial Hygiene Monitoring Methods	Contact the Bristol-Myers Squibb AIHA accredited Industrial Hygiene Laboratory at 732-227-6338.			

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS / PERSONAL PROTECTION FOR MATERIAL AS SUPPLIED

This formulation contains an active drug substance (API) with the guideline limit noted above. To keep the API below the recommended guideline, the material as supplied should be controlled during handling to limit total airborne aerosol exposure to: 1.6 µg/m³.

<p>Engineering Controls and Ventilation</p>	<p>FOR MANUFACTURING PROCESSES (BULK): Use process enclosures, containment technology, or other engineering controls to keep airborne levels below recommended exposure limit. When handling quantities up to 3 milligrams, a standard laboratory with general laboratory dilution ventilation (e.g. 6-12 air changes per hour) is appropriate. When handling quantities up to 1 kilogram, work in either a standard laboratory (<500 g) or designated laboratory (500 g to <1 kg) using a fume hood, biological safety cabinet(Class II, Type A2 with thimble connection, B1, or B2)or approved vented enclosure. HEPA filtered exhaust preferred for fume hoods containing particularly "dusty" operations. Quantities exceeding 1 kilogram should be handled in a designated laboratory or containment facility using appropriate containment technology. A laminar flow/powder containment booth or appropriate isolation technology should be considered for handling more than 1 kilogram of active compound. HEPA filtered exhaust preferred. For manufacturing and pilot plant operations, barrier/containment technology and direct coupling (totally enclosed processes that create a barrier between the equipment and the room) with use of double or split butterfly valves, hybrid unidirectional airflow/local exhaust ventilation solutions (e.g. powder containment booth) should be used. Glove bags, isolator/glove box systems are optional. HEPA filtration of exhaust from dry product handling areas is required.</p> <p>FOR CLINICAL SETTING USE (DRUG PRODUCT): When handling small quantities in a clinical setting, good room ventilation is desirable. Specific engineering controls should not be needed. When handling broken or crushed tablets or capsules, ensure worker exposure is below the recommended exposure limit. If significant dust is generated, use process enclosures, containment technology, or other engineering controls to keep airborne levels below recommended exposure limit.</p>
<p>Respiratory protection</p>	<p>Use and selection of respiratory protection is based upon engineering controls in use and potential for aerosol generation. When engineering controls are not sufficient control exposure, wear an approved respirator with NIOSH Class 100 or high efficiency particulate (HEPA) filters or cartridges (EN 140/EN 136) when exposures are up to 10 times the exposure control guideline. Wear a loose-fitting (Tyvek or helmet type) HEPA powered-air purifying respirator (PAPR) (EN 12941) when exposures are 10-25 times the exposure control guideline. Wear a full facepiece negative pressure respirator with Class 100 or HEPA filters (EN 136) when exposures are 25-50 times the exposure control guideline. Wear a tight-fitting, full facepiece HEPA PAPR (EN 12942) when exposures are 50-100 times the exposure control guideline. Wear a hood-shroud HEPA PAPR (EN 12941) or full facepiece supplied air respirator (EN 139) operated in a pressure demand or other positive pressure mode when exposures are 100-1000 times the exposure control guideline.</p>
<p>Eye protection</p>	<p>Safety glasses with side-shields are recommended (EN 166). Face shields or chemical safety goggles (EN 166) may be required if splash potential exists or if corrosive materials are present. Note: Choice of eye protection may be influenced by the type of respirator which is selected.</p>
<p>Hand protection</p>	<p>Wear gloves at all times when handling containers, including when unpacking, inspecting or transporting within a facility. Impervious gloves are recommended. (EN 420, EN 374). Double gloving for all manufacturing personnel potentially in direct contact with the compound should be considered. If material is handled in solution, the solvent should also be considered when selecting protective clothing material.</p>

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin and body protection	Wear a laboratory coat (EN 340) when handling quantities up to 500 grams. For quantities up to 1 kilogram, wear disposable laboratory coat (EN 340) or coverall of low permeability (EN 1149-1) . For quantities over 1 kilogram and manufacturing operations, wear disposable coverall of low permeability (EN 1149-1) and disposable shoe covers.
Hygiene	Wash hands and face before breaks and immediately after handling the product.
Environmental exposure controls	Prevent release to drains and waterways.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance

Physical State	solid
Color	white
Form	round, tablet

Odour

Odour	Not available
Odor Threshold	Not available

pH	Not available
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Other information

Bulk density	Not available
Evaporation rate	Not available
Molecular formula	Not applicable
Hydrolysis/Photolysis	Not available
Hygroscopicity	Not available
Molecular Weight	Not applicable
Log Octanol/Water Partition Coefficient [log Kow]	Not available
Surface Tension	Not available
pKa	Not available
Particle Size	Not available
Solubility, Water	Not available
Specific Gravity/ Relative density	Not available
Viscosity, dynamic	Not available
Viscosity, kinematic	Not available
% Volatile	Not available

Thermal/Stability properties

Autoignition temperature	Not available
Boiling Point	Not available
Thermal decomposition	Not available
Explosive Limits, LEL	Not available
Explosive limits, UEL	Not available
Explosiveness	Non-explosive based on chemical structure.
Flammability	Not readily combustible
Flash point	Not available
Melting Point	Not available
Oxidizing Potential	Non-oxidizer based on chemical structure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Properties

Vapor Density	Not available
Vapor Pressure	Not available
Saturated Vapor Concentration	Not available

10. STABILITY AND REACTIVITY

Stability

Chemical Stability	Stable under normal conditions.
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Conditions to avoid	Not available
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Materials to avoid	Not available
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Hazardous decomposition products	Hazardous decomposition products: carbon oxides (COx), silicone oxides, and, gaseous hydrogen chloride (HCl).
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Hazardous reactions	None known.
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Sensitivity to static discharge/Dust exp.

Summary Statements	Although material has not been specifically tested, fine dust suspended in air in sufficient concentration and in the presence of an ignition source may pose a potential explosion hazard. Provide appropriate bonding and grounding protection to control static charge. Powder handling equipment such as dust collectors, dryers, and mills may require additional protective measures (e.g. explosion venting, inerting, etc.).
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11. TOXICOLOGICAL INFORMATION

Routes of Entry	Ingestion, inhalation, Eye contact, Skin contact
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Eye Irritation	<u>Microcrystalline Cellulose</u> Mildly and/or transiently irritating to eyes
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Skin Irritation	<u>Microcrystalline Cellulose</u> Not irritating to skin.
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Respiratory Irritation	<u>Microcrystalline Cellulose</u> Respiratory Irritant
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Sensitization	<u>Microcrystalline Cellulose</u> Not a dermal sensitizer
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11. TOXICOLOGICAL INFORMATION

Acute Toxicity Study

Acute Oral

Mitotane

LD50 (rat): > 5,000 mg/kg

LD50 (rat): > 5,000 mg/kg

LD50 (mouse): > 4,000 mg/kg

LD50 (guinea pig): > 5,000 mg/kg

Microcrystalline Cellulose

LD50 (rat, males and females): > 5,000 mg/kg

Acute Dermal

Microcrystalline Cellulose

LD50 (rat, males and females): > 2,000 mg/kg

Acute inhalation toxicity

Microcrystalline Cellulose

LC50 (rat, males and females): > 5350 mg/m³/4 H

Acute toxicity (other routes of administration)

Microcrystalline Cellulose

LD50 (rat, males, intraperitoneal): > 3,160 mg/kg

Repeated Dose Toxicity

Mitotane

oral (daily) dog study: LOAEL = 50 mg/kg; Low dose microscopic effects include: adrenal glands.

14 Days intraperitoneal (daily) guinea pig study (males): LOAEL = 300 mg/kg; High dose effects include: mortality. High dose microscopic effects include: adrenal glands.

Genetic Toxicity

Mitotane

In vitro

Ames reverse-mutation assay -- negative

Chromosome aberration test in vitro -- positive

Microcrystalline Cellulose

Mutagenicity Assessment

This material was negative in a battery of in vivo and in vitro genotoxicity assays.

Carcinogenicity

Mitotane

Carcinogenicity Assessment

This material was a carcinogen in animal studies. (This result is from a study on a structurally-and/or pharmacologically-related substance.) This material is considered to be a possible human carcinogen.

Microcrystalline Cellulose

Carcinogenicity Assessment

This material did not show carcinogenic potential in animal studies. Not classifiable as to its carcinogenicity to humans.

11. TOXICOLOGICAL INFORMATION			
Carcinogenicity	ACGIH	IARC	NTP
Mitotane	--	2B	--
Microcrystalline Cellulose	--	--	--
Reproductive Toxicity	<p><u>Microcrystalline Cellulose</u> Assessment Reproductive Toxicity Data indicate that this compound is not a reproductive hazard.</p>		
Developmental Toxicity	<p><u>Mitotane</u> Reproductive and developmental study (mouse) Fetal effects include: malformations. Reproductive and developmental study (rat) LOAEL = 10 mg/day Offspring effects include: developmental delay, altered estrous cycling. Developmental Toxicity Assessment Developmental toxicant</p> <p><u>Microcrystalline Cellulose</u> Developmental Toxicity Assessment Available data do not indicate a potential for selective developmental toxicity.</p>		
Human experience	<p>Experiences with Human Exposure <u>Mitotane</u> oral therapeutic use low exposure - acute effects include: anorexia, nausea, vomiting, diarrhoea, lethargy, dizziness, vertigo, depression, headache, irritability, confusion, tremors, weakness, fatigue, central nervous system effects, rash, skin effects, gynecomastia, eye effects, breathing difficulties. low exposure - long term exposure effects include: adrenal hormone changes, changes in clinical pathology parameters, bleeding, changes in urine chemistry, hypertension, kidney toxicity.</p> <p>Incident report(s) therapeutic use low exposure - acute effects include: impotency. low exposure - long term exposure effects include: testicular atrophy. It is unclear whether this effect(s) is attributed to exposure to this compound.</p>		
Target Organs	<p><u>Mitotane</u> adrenal glands, central nervous system, skin, eyes</p>		
Symptoms	<p><u>Mitotane</u> See "Human Experience".</p> <p><u>Microcrystalline Cellulose</u> labored respiration, noisy respiration, chest pain, breathing difficulties, shortness of breath, lung inflammation</p>		

11. TOXICOLOGICAL INFORMATION

Pharmacokinetics/ Toxicokinetics	<u>Mitotane</u> Absorption: Not available Distribution: Not available Metabolism: Not available Elimination: Half-life = 18 - 159 Day(s) (Human).
Other Toxicity Information	Not available

12. ECOLOGICAL INFORMATION

<u>Ecotoxicity effects</u>	
Mobility	Not available
Persistence and degradability	Not available
Summary Statements	
Aquatic toxicity	
<u>Mitotane</u> Very toxic to aquatic life with long lasting effects. Potential endocrine disruptor This result is from a study on a structurally-and/or pharmacologically-related substance.	
Chemical Fate	
<u>Mitotane</u> Not inherently biodegradable - does not easily biodegrade in the environment High potential for bioaccumulation This result is from a study on a structurally-and/or pharmacologically-related substance.	
PBT and vPvB Assessment:	Not available

13. DISPOSAL CONSIDERATIONS

Advice On Disposal And Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements. This information presented only applies to the material as supplied.
Other information	Disposal by incineration is recommended.

14. TRANSPORT INFORMATION

IMDG	
UN/ID No.	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Mitotane)
Class	9
Packing group	III
Labelling	9
EmS	F-AS-F
ICAO/IATA-DGR	
UN/ID No.	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Mitotane)
Class	9
Packaging group	III
Labelling	9
ADR	

14. TRANSPORT INFORMATION

UN/ID No.	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Mitotane)
Class	9
Packaging group	III
Labelling	9
RID	
UN/ID No.	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Mitotane)
Class	9
Packaging group	III
Labelling	9
Transportation Classification for All Modes:	
Marine pollutant	

15. REGULATORY INFORMATION

United States of America

313 Toxic Release Inventory No components listed on the SARA 313 inventory.

TSCA Inventory Not listed. Food, drug and cosmetic products are exempt from TSCA.

EU Directive 1999/45/EC

BULK MATERIAL

Symbol(s) T: Toxic
N: Dangerous for the environment

R-phrases R37: Irritating to respiratory system.
R40: Limited evidence of a carcinogenic effect.
R48: Danger of serious damage to health by prolonged exposure.
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R61: May cause harm to the unborn child.
R64: May cause harm to breastfed babies.

S-phrases S22: Do not breathe dust.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S53: Avoid exposure - obtain special instructions before use.
S60: This material and its container must be disposed of as hazardous waste.
S61: Avoid release to the environment. Refer to special instructions/ Safety data sheets.

DRUG PRODUCT

Classification Medicinal products are exempt from classification and labeling requirements under EU Preparations Directive 1999/45/EC.

Regulatory Authorizations and Restrictions: Not available

16. OTHER INFORMATION

Text of Symbol(s), R-phrases(s) and H-code(s) mentioned in Section 3

H335	May cause respiratory irritation
H351	Suspected of causing cancer.
H360D	May damage the unborn child
H362	May cause harm to breast-fed children.
H372	Causes damage to organs through prolonged or repeated exposure.
H400/M=100	Very toxic to aquatic life. (M=100)
H410/M=100	Very toxic to aquatic life with long lasting effects.(M=100)
N	Dangerous for the environment
R37	Irritating to respiratory system.
R40	Limited evidence of a carcinogenic effect.
R48	Danger of serious damage to health by prolonged exposure.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R61	May cause harm to the unborn child.
R64	May cause harm to breastfed babies.
T	Toxic
Xi	Irritant

Recommended Restrictions for Use:

Not available

SDS preparation information

Prepared by Research and Development Environment, Health and Safety 1-732-227-7380

Prepared on 25.02.2014 DD/MM/YYYY

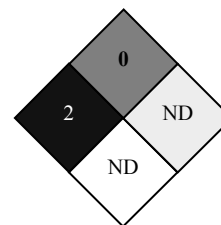
This Safety Data Sheet has been revised. This data sheet contains changes from the previous version in section(s): 2, 3, 11, 12, 14, 15, and 16.

Other information

HMIS	Health	2*
	Flammability	0
	Reactivity	Not Determined (ND)
	Personal protective equipment	See Section 8.

NFPA

Health	2
Fire	0
Reactivity	ND
Special	ND



Country- Specific Emergency Phone Numbers

CHEMTREC In-Country Dial Numbers	Local # Provided in Country	Toll Free in Country*	Greeting Language
CHEMTREC South Africa*		0-800-983-611	English
CHEMTREC Argentina (Buenos Aires)	+(54)-1159839431		Latin American Spanish
CHEMTREC Brazil (Rio De Janeiro)	+(55)-2139581449		Portuguese
CHEMTREC Chile (Santiago)	+(56)-25814934		Latin American Spanish
CHEMTREC Colombia *		01800-710-2151	Latin American Spanish
CHEMTREC Mexico*		01-800-681-9531	Latin American Spanish
CHEMTREC Peru (Lima)	+(51)-17071295		Latin American Spanish
CHEMTREC China*	4001-204937		Mandarin
CHEMTREC Hong Kong (Hong Kong)*		800-968-793	Cantonese
CHEMTREC India *		000-800-100-7141	Hindi
CHEMTREC Indonesia *		001-803-017-9114	Indonesian
CHEMTREC Japan (Tokyo)	+(81)-345209637		Japanese
CHEMTREC Malaysia *		1-800-815-308	Malay
CHEMTREC Philippines *		1-800-1-116-1020	Tagalog
CHEMTREC Singapore*		800-101-2201	Mandarin
CHEMTREC Singapore	+(65)-31581349		Mandarin
CHEMTREC South Korea*		00-308-13-2549	Korean
CHEMTREC Taiwan*		00801-14-8954	Mandarin
CHEMTREC Thailand *		001-800-13-203-9987	Thai
CHEMTREC Vietnam (Ho Chi Minh City)	+(84)-838012436		Vietnamese
CHEMTREC Australia (Sydney)	+(61)-290372994		English
CHEMTREC Belgium (Brussels)	+(32)-28083237		French and Flemish
CHEMTREC Czech Republic (Prague)	+(420)-228880039		Czech
CHEMTREC France	+(33)-975181407		French
CHEMTREC Germany *		0800-181-7059	German
CHEMTREC Hungary (Budapest)	+(36)-18088425		Hungarian
CHEMTREC Italy *		800-789-767	Italian
CHEMTREC Italy (Milan)	+(39)-0245557031		Italian
CHEMTREC Netherlands	+(31)-858880596		Dutch
CHEMTREC Poland (Warsaw)	+(48)-223988029		Polish
CHEMTREC Spain*		900-868538	European Spanish
CHEMTREC Sweden (Stockholm)	+(46)-852503403		Swedish
CHEMTREC Switzerland (Zurich)	+(41)-435016715		German
CHEMTREC UK (London)	+(44)-870-8200418		English
CHEMTREC Bahrain (Bahrain)	+(973)-16199372		Arabic
CHEMTREC Israel (Tel Aviv)	+(972)-37630639		Hebrew

*Phone numbers for countries marked with an asterisk must be dialed within the country

The information contained in this SDS is believed to be accurate and represents the best information reasonably available at the time of preparation. However, we make no warranty, express or implied, with respect to such information. and we assume no liability from its use.