



## SAFETY DATA SHEET

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### SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

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**Product identifier**

Gemcitabine 200mg Powder for Solution for Infusion

**Synonyms**

None identified

**Trade names**

None identified

**Chemical family**

Mixture

**Relevant identified uses  
of the substance or  
mixture and uses  
advised against**

Bulk formulated pharmaceutical product/Formulated pharmaceutical product packaged in final form and intended for the final user; indicated for the treatment of certain types of cancer.

**Note**

The toxicological and ecological properties of this mixture and/or its ingredients have not been fully characterized. This SDS will be revisited as more data become available.

**Issue Date**

5 January 2011

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## SECTION 2 - HAZARDS IDENTIFICATION

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### Classification of the substance or mixture

**Drugs in the finished state and intended for the final user are not subject to labeling in the US, EU or Canada.** Please consult the prescribing/packaging information. **The classification and labelling listed below is for bulk Gemcitabine for Injection/Infusion.**

#### Regulation (EC) 1272/2008 [GHS]

Acute toxicity - oral - Category 4. Acute toxicity - dermal - Category 4. Irritant (skin) - Category 2. Irritant (eye) - Category 2. Reproductive Toxicity - Category 2. Germ Cell Mutagenicity - Category 1B. Carcinogenic - Category 2. Specific Target Organ Toxicity (repeated exposure) - Category 1. Aquatic toxicity (chronic) - Category 2.

#### Directive 67/548/EEC or 1999/45/EC

T - R21/22, R36/38, R40 (Carc. Cat. 3), R46 (Muta. Cat. 2), R62 (Repr. Cat. 3), R63 (Repr. Cat. 3); N - R51/53

### Label elements

#### CLP/GHS hazard pictogram



#### CLP/GHS signal word

Danger

#### CLP/GHS hazard statements

H302 - Harmful if swallowed. H312 - Harmful in contact with skin. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H340 - May cause genetic defects. H351 - Suspected of causing cancer. H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child. H372 - Causes damage to the blood, bone marrow, gastrointestinal tract, and testes through prolonged or repeated exposure. H411 - Toxic to aquatic life with long-lasting effects.

#### CLP/GHS precautionary statements

P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust. P270 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment. P281 - Use personal protective equipment as required. P301+P312: IF SWALLOWED: Call a Poison Center or doctor/physician if you feel unwell. P302 + P352 - If on skin: Wash with plenty of soap and water. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 - Get medical advice/attention if you feel unwell. P321 - Specific treatment (see First Aid information on product label and/or Section 4 of the SDS). P330 - Rinse mouth. P362 - Take off contaminated clothing and wash before reuse. P405 - Store locked up. P501 - Dispose of contents/container to location in accordance with local/regional/national/international regulations.

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**SECTION 2 - HAZARDS IDENTIFICATION ...continued**

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**EU symbol/indication of danger**

T - Toxic



N - Dangerous for the environment

**Risk (R) Phrase(s)**

R21/22 - Harmful in contact with skin and if swallowed. R36/38 - Irritating to eyes and skin. R40 - Limited evidence of a carcinogenic effect. R46 - May cause heritable genetic damage. R62 - Possible risk of impaired fertility. R63 - Possible risk of harm to the unborn child. R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Advice**

S24 - Avoid contact with skin. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37 - Wear suitable protective clothing and gloves. S53 - Avoid exposure - Obtain special instructions before use. S57 - Use appropriate container to avoid environmental contamination. 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.

**Other hazards**

Contains gemcitabine, a cytotoxic agent. The most commonly reported adverse effects associated with gemcitabine use include blood and bone marrow suppression (dose-limiting), edema, gastrointestinal disturbances (*e.g.*, nausea, vomiting, diarrhea, constipation), hair loss, "flu-like" symptoms, and fever. Small changes to liver and kidney parameters were also noted.

There are scientific studies that suggest personnel (*e.g.*, nurses, pharmacists) who prepare and administer parenteral antineoplastics may be at some risk due to potential mutagenicity, adverse effects on reproduction and/or carcinogenicity if these materials are not properly controlled in the workplace. The actual risk in the workplace is not known.

**US Signal word**

Caution

**US Hazard overview**

Mixture contains gemcitabine - a cytotoxic anticancer agent. May be harmful if swallowed. May be harmful if absorbed through skin. May cause skin irritation. May cause eye irritation. Possible Reproductive/Developmental hazard - may cause adverse reproductive/developmental effects (based on animal data). Genotoxic. Can cause blood, bone marrow, and gastrointestinal, damage. May cause testicular damage based on animal data. Toxic to aquatic life with long-lasting effects.

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## SECTION 2 - HAZARDS IDENTIFICATION ...continued

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**Note** This mixture is classified as dangerous/hazardous according to Directive 67/548/EEC, Regulation EC No 1272/2008 (EU CLP), and applicable US regulations. The GHS classifications are based on Regulation (EC) 1272/2008. The EU symbol/indicator of danger, R Phrases and Safety Advice are based on Directive 67/548/EEC or 1999/45/EC.

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## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

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<u>Ingredient</u>	<u>CAS #</u>	<u>EINECS/ ELINCS#</u>	<u>Amount</u>	<u>EU Classification</u>	<u>GHS Classification</u>
Gemcitabine Hydrochloride	122111-03-9	N/A	~50-55 %	Toxic - T: R21/ 22, R36/38, R40, R46, R62, R63; Dang. to Env. - N: R51/53	ATO4: H302; ATD4: H312; SI2: H315; EI2: H319; RT2: H361fd, GCM1B: H340, Carc2: H351; STOT-R1: H372; CA2: H411

**Note** The ingredient listed above is considered dangerous/hazardous. The remaining components are non-hazardous and/or present at amounts below reportable limits. See Section 16 for full text of EU and GHS classifications. The EU classification is based on Directive 67/548/EEC and the GHS classification is based on Regulation (EC) 1272/2008.

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## SECTION 4 - FIRST AID MEASURES

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### Description of first aid measures

#### Immediate Medical Attention Needed

Yes

#### Eye Contact

If easy to do, remove contact lenses, if worn. Immediately flush eyes with copious quantities of water for at least 15 minutes. If irritation occurs or persists, notify medical personnel and supervisor.

#### Skin Contact

Wash exposed area with soap and water and remove contaminated clothing/shoes. If irritation occurs or persists, notify medical personnel and supervisor.

#### Inhalation

Immediately move exposed subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, administer oxygen. Immediately notify medical personnel and supervisor.

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## SECTION 4 - FIRST AID MEASURES ...continued

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<b>Ingestion</b>	Do not induce vomiting unless directed by medical personnel. Do not give anything to drink unless directed by medical personnel. Never give anything by mouth to an unconscious person. Notify medical personnel and supervisor.
<b>Protection of first aid responders</b>	See Section 8 for Exposure Controls/Personal Protection recommendations.
<b>Most important symptoms and effects, both acute and delayed</b>	See Sections 2 and 11.
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	Contains gemcitabine - a cytotoxic anticancer agent. Medical conditions aggravated by exposure: blood, bone marrow, or gastrointestinal disorders. Treat symptomatically and supportively. If accidental exposure occurs to an individual who is also taking one or more concomitant medications, consult the respective package or prescribing information for potential drug interactions.

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## SECTION 5 - FIREFIGHTING MEASURES

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<b>Extinguishing media</b>	Use water spray (fog), foam, dry powder, or carbon dioxide, as appropriate for surrounding fire and materials.
<b>Specific hazards arising from the substance or mixture</b>	No information identified. Emits toxic fumes of carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen chloride and other chlorine- and fluorine-containing compounds.
<b>Flammability/Explosivity</b>	No explosivity or flammability data identified. High concentrations of finely divided airborne organic particles can potentially explode if ignited.
<b>Advice for firefighters</b>	Wear full protective clothing and a self-contained breathing apparatus with a full facepiece operated in the pressure demand or other positive pressure mode. Decontaminate all equipment after use.

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## SECTION 6 - ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions, protective equipment and emergency procedures</b>	If product is released or spilled, take proper precautions to minimize exposure by using appropriate personal protective equipment (see Section 8). Area should be adequately ventilated. Do not breathe dust.
<b>Environmental precautions</b>	Do not empty into drains. Avoid release to the environment.
<b>Methods and material for containment and cleaning up</b>	Do not cause material to become airborne. Surround spill or powder with absorbents and place a damp cloth or towel over the area to minimize entry of powder into the air. Add excess liquid to allow the material to enter solution. Capture remaining liquid onto spill absorbents. Place spill materials into a leak-proof container suitable for disposal in accordance with applicable waste disposal regulations (see Section 13). Decontaminate the area twice.

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**SECTION 6 - ACCIDENTAL RELEASE MEASURES ...continued**

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**Reference to other sections** See Sections 8 and 13 for more information.

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**SECTION 7 - HANDLING AND STORAGE**

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**Precautions for safe handling** Follow recommendations for handling pharmaceutical agents (i.e., use of engineering controls and/or other personal protective equipment if needed). Avoid breathing dust. Wash thoroughly after handling.

**Conditions for safe storage including any incompatibilities** Store at room temperature (~15-25°C) away from incompatible materials. Do not refrigerate or freeze. Keep away from direct light. Keep container tightly closed in a dry and well-ventilated place.

**Specific end use(s)** No information identified.

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**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**Note** Wash hands, face and other potentially exposed areas immediately in the event of physical contact.

**Control Parameters/  
Occupational Exposure  
Limit Values**

<u>Compound</u>	<u>Issuer</u>	<u>Type</u>	<u>OEL</u>
Gemcitabine Hydrochloride	--	--	--

**Exposure/Engineering controls** Control exposures to below the OEL (if available). Otherwise, selection and use of containment devices and personal protective equipment should be based on a risk assessment of exposure potential. Open handling should not be performed when handling potent substances, or substances of unknown toxicity. Material should be handled inside a closed process, ventilated enclosure, isolator or device of equivalent or better control that is suitable for dusts and/or aerosols.

**Respiratory protection** Choice of respiratory protection should be appropriate to the task and the level of existing engineering controls. For routine powder handling tasks, an approved and properly worn powered air-purifying respirator equipped with appropriate HEPA filters or combination filters should provide ancillary protection based on the known or foreseeable limitations of existing engineering controls. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, when exposure levels are not known, or in any other circumstances where air purifying respirators may not provide adequate protection.

**Hand protection** Wear nitrile or other impervious gloves if skin contact is possible. Double gloves should be considered. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent.

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**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION ...continued**

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<b>Skin protection</b>	Wear appropriate gloves, lab coat, or other protective overgarment if skin contact is likely. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use.
<b>Eye/face protection</b>	Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.
<b>Environmental Exposure Controls</b>	Avoid release to the environment and operate within closed systems wherever practicable. Air and liquid emissions should be directed to appropriate pollution control devices. In case of spill, do not release to drains. Implement appropriate and effective emergency response procedures to prevent release or spread of contamination and to prevent inadvertent contact by personnel.
<b>Other protective measures</b>	Wash hands in the event of contact with this substance, especially before eating, drinking or smoking. Protective equipment is not to be worn outside the work area (e.g., in common areas or out-of-doors).

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**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

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**Information on basic physical and chemical properties**

<b>Appearance</b>	Lyophilized powder
<b>Color</b>	White to off-white
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not applicable.
<b>pH</b>	Acidic
<b>Melting point/ freezing point</b>	No information identified.
<b>Initial boiling point and boiling range</b>	Not applicable.
<b>Flash point</b>	No information identified.
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	No information identified.
<b>Upper/lower flammability or explosive limits</b>	No information identified.
<b>Vapor pressure</b>	No information identified.

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**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES** ...continued

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<b>Vapor density</b>	No information identified.
<b>Relative density</b>	No information identified.
<b>Water solubility</b>	Soluble.
<b>Solvent solubility</b>	No information identified.
<b>Partition coefficient (<i>n</i>-octanol/water)</b>	No information identified.
<b>Auto-ignition temperature</b>	No information identified.
<b>Decomposition temperature</b>	No information identified.
<b>Viscosity</b>	No information identified.
<b>Explosive properties</b>	No information identified.
<b>Oxidizing properties</b>	No information identified.
<b>Other information</b>	
<b>Molecular weight</b>	299.66 (gemcitabine HCl)
<b>Molecular formula</b>	C <sub>9</sub> H <sub>11</sub> F <sub>2</sub> N <sub>3</sub> O <sub>4</sub> HCl (gemcitabine HCl)

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**SECTION 10 - STABILITY AND REACTIVITY**

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<b>Reactivity</b>	No information identified.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Not expected to occur.
<b>Conditions to avoid</b>	No information identified.
<b>Incompatible materials</b>	Oxidizing agents.
<b>Hazardous decomposition products</b>	No information identified.

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**SECTION 11 - TOXICOLOGICAL INFORMATION**

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<b>Note</b>	<b>The following data describe the active ingredient and/or the individual ingredients where applicable.</b>
<b>Information on toxicological effects</b>	
<b>Route of entry</b>	May be absorbed by inhalation, skin contact and ingestion.

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**SECTION 11 - TOXICOLOGICAL INFORMATION ...continued**


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**Acute toxicity**

<u>Compound</u>	<u>Type</u>	<u>Route</u>	<u>Species</u>	<u>Dose</u>
Gemcitabine Hydrochloride	LD <sub>50</sub>	Oral	Rat	>500 mg/kg (gemcitabine)
	LD <sub>50</sub>	Intravenous	Rat	236 mg/kg
	LD <sub>50</sub>	Intravenous	Mouse	500 mg/kg
	LD <sub>50</sub>	Dermal	Rabbit	>1000 mg/kg (gemcitabine)

**Irritation/Corrosion**

Gemcitabine was irritating to the eyes and skin of rabbits.

**Sensitization**

Gemcitabine was not considered a skin sensitizer in guinea pigs.

**STOT-single exposure**

No data available.

**STOT-repeated exposure/Repeat-dose toxicity**

In mice, gemcitabine administration *via* intraperitoneal (IP) injection decreased several blood cell parameters, testes weight, sperm number/formation at doses >0.3 mg/kg/day for up to 6 months.

In dogs, gemcitabine administration *via* intravenous (IV) injection decreased blood platelets and bone marrow cells at doses of 0.2 mg/kg/day or 0.3 mg/kg/week for up to 6 months.

**Reproductive toxicity**

Gemcitabine decreased sperm counts, fertility, and implantations following IP injection to male mice at 0.5 mg/kg/day for 10 weeks prior to and throughout mating. No evidence of fertility impairment was seen in female mice following IV injections of 1.5 mg/kg/day for 2 weeks prior to mating and throughout gestation.

**Developmental toxicity**

Gemcitabine caused embryo/fetotoxicity following IV administration to pregnant female mice at doses of 0.25 mg/kg/day. Unspecified malformations were noted in rats and rabbits following IV injections of 1.5 and 0.1 mg/kg/day, respectively. Maternal toxicity was also noted in rats at the 1.5 mg/kg/day dose level.

**Genotoxicity**

Gemcitabine was negative in the Ames bacterial mutagenicity assay and several *in vitro* assays including the sister chromatid exchange assay with Chinese hamster bone marrow cells, the unscheduled DNA synthesis assay with rat liver cells, and the chromosomal aberration assay with Chinese hamster ovary cells. However, it was positive in the forward mutation TK mouse lymphoma assay, the dominant lethal mutation test in mice, and the *in vivo* mouse micronucleus assay.

**Carcinogenicity**

No carcinogenicity studies were identified. Gemcitabine is not listed by NTP, IARC, ACGIH or OSHA as a carcinogen.

**Aspiration hazard**

No data available.

**Human health data**

See "Section 2 - Other Hazards"

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## SECTION 12 - ECOLOGICAL INFORMATION

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### Toxicity

<u>Compound</u>	<u>Type</u>	<u>Species</u>	<u>Concentration</u>
Gemcitabine Hydrochloride	LC <sub>50</sub> /96h	Rainbow Trout	>1043 mg/L
	LC <sub>50</sub> /96h	Fathead minnow	>1014 mg/L
	EC <sub>50</sub> /48h	Daphnia magna	>999 mg/L
	EC <sub>50</sub>	Algae	5.4 mg/L

### Persistence and Degradability

Gemcitabine HCl has a biodegradation half-life equivalent to 30% in 28 days (fairly persistent).

### Bioaccumulative potential

A log K<sub>OW</sub> of -2.01 was identified for gemcitabine.

### Mobility in soil

No data available.

### Results of PBT and vPvB assessment

Not performed.

### Other adverse effects

No data available.

### Note

The environmental characteristics of the formulated product have not been fully investigated. Data above describe the active ingredient and/or the individual ingredients where applicable. Releases to the environment should be avoided.

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## SECTION 13 - DISPOSAL CONSIDERATIONS

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### Waste treatment methods

Dispose of wastes in accordance to prescribed federal, state, and local guidelines, e.g., appropriately permitted chemical waste incinerator. Do not send down the drain or flush down the toilet. All wastes containing the material should be properly labeled. Rinse waters resulting from spill cleanups should be discharged in an environmentally safe manner, e.g., appropriately permitted municipal or on-site wastewater treatment facility.

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## SECTION 14 - TRANSPORT INFORMATION

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### Transport

This material may be regulated for transportation as a hazardous material/dangerous good.

### UN number

3077

### UN proper shipping name

Environmentally Hazardous Substance, Solid, n.o.s. (gemcitabine)

### Transport hazard classes and packing group

### US DOT shipping description

None required.

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**SECTION 14 - TRANSPORT INFORMATION ...continued**

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<b>IATA/ICAO shipping description</b>	UN/ID Number - UN3077; Proper Shipping Name - Environmentally Hazardous Substance, Solid, n.o.s. (gemcitabine); Hazard Class - 9; Packing Group III. (exceptions from Environmentally Hazardous Substance marking exists for certain package sizes)
<b>IMDG shipping description</b>	UN/ID Number - UN3077; Proper Shipping Name - Environmentally Hazardous Substance, Solid, n.o.s. (gemcitabine); Hazard Class - 9; Packing Group III. (exceptions from Marine Pollutant marking exists for certain package sizes) (Marine Pollutant)
<b>IMDG marine pollutant</b>	Gemcitabine
<b>ADR Shipping Description</b>	Pharmaceutical products (medicines) ready for use and packaged for retail sale or distribution for personal or household use are not regulated per Special Provision 601.
<b>Canadian TDG</b>	None required.
<b>Environmental hazards</b>	Based on the available data, this product/mixture is regulated as an environmental hazard or a marine pollutant.
<b>Special precautions for users</b>	Avoid release to the environment.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.

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**SECTION 15 - REGULATORY INFORMATION**

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<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	This SDS complies with the requirements under US, EU and GHS (EU CLP - Regulation EC No 1272/2008) guidelines. Consult your local or regional authorities for more information.
<b>Chemical safety assessment</b>	Not conducted.
<b>OSHA Hazardous</b>	Yes. Caution. May be harmful if swallowed. May be harmful if absorbed through skin. May cause skin irritation. May cause eye irritation. Possible Reproductive/ Developmental hazard - may cause adverse reproductive/developmental effects (based on animal data). Genotoxic. Can cause blood, bone marrow, and gastrointestinal, damage. May cause testicular damage based on animal data. Toxic to aquatic life with long-lasting effects.
<b>WHMIS classification</b>	Not required. Drugs are not subject to WHMIS. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

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**SECTION 15 - REGULATORY INFORMATION ...continued**

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<b>TSCA status</b>	Drugs are exempt from TSCA.
<b>SARA section 313</b>	Not listed.
<b>California proposition 65</b>	Not listed.
<b>Additional information</b>	No other information identified.

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**SECTION 16 - OTHER INFORMATION**

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**Full text of R phrases and EU Classifications** T - Toxic. N - Dangerous for the Environment. R21/22 - Harmful in contact with skin and if swallowed R36/38 - Irritating to eyes and skin. R40 - Limited evidence of a carcinogenic effect. Carc. Cat. 3 - Carcinogenic Category 3. R46 - May cause heritable genetic damage. Muta. Cat. 2 - Mutagenic Category 2. R62 - Possible risk of impaired fertility. R63 - Possible risk of harm to the unborn child. Repr. Cat. 3 - Toxic for Reproduction Category 3. R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of H phrases, P phrases and GHS classification** ATO4 - Acute Toxicity (Oral) Category 4. H302 - Harmful if swallowed. ATD4 - Acute Toxicity (Dermal) Category 4. H312 - Harmful in contact with skin. SI2 - Skin irritant Category 2. H315 - Causes skin irritation. EI2 - Eye irritant Category 2. H319 - Causes serious eye irritation. RT2 - Reproductive toxicity Category 2. H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child. GCM1B - Germ Cell Mutagenicity Category 1B. H340 - May cause genetic defects. Carc2 - Carcinogenicity Category 2. H351 - Suspected of causing cancer. STOT-R1 - Specific Target Organ Toxicity Following Repeat Exposure Category 1. H372 - Causes damage to the blood, bone marrow, gastrointestinal tract, and testes through prolonged or repeated exposure. CA2 - Chronic Aquatic Toxicity Category 2. H411 - Toxic to aquatic life with long lasting effects.

**Sources of data** Information from published literature and internal company data.

**Abbreviations** ACGIH - American Conference of Governmental Industrial Hygienists; ADR/RID - European Agreement Concerning the International Carriage of Dangerous Goods by Road/Rail; AIHA - American Industrial Hygiene Association; CAS# - Chemical Abstract Services Number; DNEL - Derived No Effect Level; DOT - Department of Transportation; EINECS - European Inventory of New and Existing Chemical Substances; ELINCS - European List of Notified Chemical Substances; EU - European Union; GHS - Globally Harmonized System of Classification and Labeling of Chemicals; IARC - International Agency for Research on Cancer; IDLH - Immediately Dangerous to Life or Health; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; LOEL - Lowest Observed Effect Level; LOAEL - Lowest Observed Adverse Effect Level; NIOSH - The National Institute for Occupational Safety and Health; NOEL - No Observed Effect Level; NOAEL - No Observed Adverse Effect Level; NTP - National Toxicology Program; OEL - Occupational Exposure Limit; OSHA - Occupational Safety and Health Administration; PNEC - Predicted No Effect Concentration; SARA - Superfund Amendments and Reauthorization Act; STEL -

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**SECTION 16 - OTHER INFORMATION ...continued**

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**Abbreviations  
...continued**

Short Term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; WHMIS - Workplace Hazardous Materials Information System

**Revisions**

This is the first version of this SDS.

**Disclaimer**

The above information is based on data available to us and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use and all persons receiving it must make their own determination of the effects, properties and protections which pertain to their particular conditions.

No representation, warranty, or guarantee, express or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the materials, the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material because it is a potent pharmaceutical product. The above information is offered in good faith and with the belief that it is accurate. As of the date of issuance, we are providing all information relevant to the foreseeable handling of the material. However, in the event of an adverse incident associated with this product, this Safety Data Sheet is not, and is not intended to be, a substitute for consultation with appropriately trained personnel.