Clozapine: sc-200402

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Clozapine
Product Number: sc-200402

Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, CA 95060
800.457.3801 or 831.457.3800

Emergency: ChemWatch
Within the US & Canada: 877–715–9305
Outside the US & Canada: +800 2436 2255 (1–800-CHEMCALL) or call +613 9573 3112

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Carcinogen, Target Organ Effect, Toxic by ingestion, Irritant, Teratogen, Mutagen

Target Organs

Liver, Kidney, Pancreas, Central nervous system, Bone marrow

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H301 Toxic if swallowed.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.

Precautionary statement(s)

P281 Use personal protective equipment as required.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

HMIS Classification

Health hazard: 2
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 0

NFPA Rating

Health hazard: 2
Fire: 0
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Ingestion Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 8-Chloro-11-(4-methyl-1-piperazinyl)-5H-dibenzo[b,e][1,4]-diazepine
Formula : C18H19ClN4

CAS-No.	*EC-No.*	*Index-No.*	*Concentration*
Clozapine			
5786–21–0	–	–	–
Methylene chloride			
75–09–2	200–838–9	602–004–00–3	≤ 0.5 %
Acetone			
67–64–1	200–662–2	606–001–00–8	≤ 1 %

4. FIRST AID MEASURES

General advice
Move out of dangerous area.Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Acetone	67-64-1	TWA	500 ppm	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)

Remarks	Eye & Upper Respiratory Tract irritation Central Nervous System impairment Hematologic effects Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.				
		STEL	750 ppm	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)
	Eye & Upper Respiratory Tract irritation Central Nervous System impairment Hematologic effects Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.				
		TWA	750 ppm 1,800 mg/m3	1989-01-19	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors.				
		STEL	1,000 ppm 2,400 mg/m3	1989-01-19	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors.				
		TWA	1,000 ppm 2,400 mg/m3	1997-08-04	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	The value in mg/m3 is approximate.				
Methylene chloride	75-09-2	TWA	50 ppm	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Central Nervous System impairment Carboxyhemoglobinemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is lilkely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.				
	Substance listed; for more information see OSHA document 1910.1052				
	See 1910.1052				

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	solid
Colour	light yellow

Safety data

pH	no data available
Melting point	183 – 184 °C (361 – 363 °F)
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Water solubility	no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.
Conditions to avoid
no data available
Materials to avoid
Oxidizing agents
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. – Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Oral – rat – 251 mg/kg
LD50 Subcutaneous – rat – 240 mg/kg
LD50 Intramuscular – rat – 210 mg/kg
LD50 Intravenous – rat – 41.6 mg/kg
Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
no data available
Respiratory or skin sensitization
no data available
Germ cell mutagenicity
In vitro tests showed mutagenic effects
Carcinogenicity
IARC: 2B – Group 2B: Possibly carcinogenic to humans (Methylene chloride)
NTP: Reasonably anticipated to be a human carcinogen (Methylene chloride)
Reproductive toxicity
Suspected human reproductive toxicant
Specific target organ toxicity – single exposure (GHS)
no data available
Specific target organ toxicity – repeated exposure (GHS)
no data available
Aspiration hazard
no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion Toxic if swallowed.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.

Signs and Symptoms of Exposure

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 2811 Class: 6.1 Packing group: III
Proper shipping name: Toxic solids, organic, n.o.s. (Clozapine)
Reportable Quantity (RQ): 200000 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN-Number: 2811 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Clozapine)
Marine pollutant: No

IATA

UN-Number: 2811 Class: 6.1 Packing group: III
Proper shipping name: Toxic solid, organic, n.o.s. (Clozapine)

15. REGULATORY INFORMATION

OSHA Hazards

Carcinogen, Target Organ Effect, Toxic by ingestion, Irritant, Teratogen, Mutagen

DSL Status

This product contains the following components that are not on the Canadian DSL nor NDSL lists.
Clozapine CAS-No.: 5786–21–0

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard
Massachusetts Right To Know Components
Methylene chloride CAS-No.: 75–09–2

Pennsylvania Right To Know Components
Methylene chloride CAS-No.: 75–09–2
Acetone CAS-No.: 67–64–1
Clozapine CAS-No.: 5786–21–0

New Jersey Right To Know Components
Methylene chloride CAS-No.: 75–09–2
Acetone CAS-No.: 67–64–1
Clozapine CAS-No.: 5786–21–0

California Prop. 65 Components
WARNING! This product contains a chemical known to the State of California to cause cancer.
Methylene chloride CAS-No.: 75–09–2

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

11/8/2010