Chemical Book India

			Chemi	ical Safety	Data Shee	t MSDS / S	DS		
Metoclopramide SDS Revision Date:2024-04-25 Revision Number:1									
	Section 1 Section 9	Section 2 Section 10	Section 3 Section 11	Section 4 Section 12	Section 5 Section 13	Section 6 Section 14	Section 7 Section 15	Section 8 Section 16	
SECTION 1: Identification of the substance/mixture and of the company/undertaking Product identifier Product name: Metoclopramide									
CAS:			364-62-5						
Relevant identified uses of the substance or mixture and uses advised against									
Relevant identified uses:		ntified	For R&D use only. Not for medicinal, household or other use.						
Uses advised against:		I	none						
	Company Ide	ntification							
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SECTION 2: Hazards identification

Classification of the substance or mixture

Acute toxicity - Category 4, Oral Specific target organ toxicity - single exposure, Category 1

GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

Hazard statement(s)

H302 Harmful if swallowed H370 Causes damage to organs

Precautionary statement(s)

Prevention

P264 Wash ... thoroughly after handling.P270 Do not eat, drink or smoke when using this product.P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Response

P301+P317 IF SWALLOWED: Get medical help. P330 Rinse mouth. P308+P316 IF exposed or concerned: Get emergency medical help immediately. P321 Specific treatment (see ... on this label).

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in classification

no data available

Substance

Chemical name:	Metoclopramide		
Common names and synonyms:	Metoclopramide		
CAS number:	364-62-5		
EC number:	206-662-9		
Concentration:	100%		

SECTION 4: First aid measures

Description of necessary first-aid measures

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

Most important symptoms/effects, acute and delayed

no data available

Indication of immediate medical attention and special treatment needed, if necessary

Treatment of metoclopramide overdosage generally involves symptomatic and supportive care. There is no specific antidote for metoclopramide intoxication; however, agents with central anticholinergic activity (eg, diphenhydramine, benztropine) may be useful in controlling extrapyramidal reactions. Following acute ingestion of the drug, the stomach should be emptied immediately.

If the patient is comatose, having seizures, or lacks the gag reflex, gastric lavage may be performed if an endotracheal tube with cuff inflated is in place to prevent aspiration of gastric contents. Symptoms of metoclopramide overdosage are generally selflimiting and usually subside within 24 hours. Appropriate therapy should be instituted if hypotension or excessive sedation occurs. Methemoglobinemia should be treated with methylene blue. However, in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency, methylene blue can induce hemolytic anemia, which may be fatal. Hemodialysis or peritoneal dialysis is unlikely to enhance the elimination of metoclopramide.

SECTION 5: Firefighting measures

Suitable extinguishing media

Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.

Specific hazards arising from the chemical

no data available

Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labelled container for disposal. Wash spill site.

SECTION 7: Handling and storage

Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Metoclopramide hydrochloride tablets, injection, and oral solution should be stored at controlled room temperature between 20-25 deg C. Metoclopramide hydrochloride tablets and metoclopramide hydrochloride oral solution should be stored in tight, light-resistant containers (ie, amber glass bottles).

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived

from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state:	Solid		
Colour:	no data available		
Odour:	no data available		
Melting point/freezing point:	-46°C(lit.)		
Boiling point or initial boiling point and boiling range:	342°C(lit.)		
Flammability:	no data available		
Lower and upper explosion limit/flammability limit:	no data available		
Flash point:	96°C(lit.)		
Auto-ignition temperature:	no data available		
Decomposition temperature:	no data available		
pH:	no data available		
Kinematic viscosity:	no data available		

Partition coefficient n- octanol/water:	no data available
Vapour pressure:	4.6X10-9 mm Hg at 25 deg C (est)
Density and/or relative density:	1.162 g/cm3
Relative vapour density:	no data available
Particle characteristics:	no data available

SECTION 10: Stability and reactivity

Reactivity

no data available

Chemical stability

Metoclopramide hydrochloride is photosensitive and will degrade when exposed to light. Commercially available preparations of metoclopramide hydrochloride should be protected from light. The commercially available tablets are stable for 3 years and the oral solution and injection are stable for 5 years after manufacture.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Incompatible materials

Incompattable with/ strong alkalis, strong oxidizing agents.

Hazardous decomposition products

When heated to decomposition it emits very toxic fumes of /nitrogen oxides and hydrogen chloride/.

SECTION 11: Toxicological information

Acute toxicity

Oral: LD50 Rat oral 750 mg/kg Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

SECTION 12: Ecological information

Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

no data available

Bioaccumulative potential

An estimated BCF of 25 was calculated in fish for metoclopramide(SRC), using a log Kow of 2.62(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

Mobility in soil

The Koc of metoclopramide is estimated as 120(SRC), using a log Kow of 2.62(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that metoclopramide is expected to have high mobility in soil. The pKa of metoclopramide is 9.27(4), indicating that this compound will almost entirely exist in the cation form in the environment and cations generally do adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(5).

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

Environmental hazards

ADR/RID: No IMDG: No IATA: No

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Not Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

(PICCS)

Not Listed.

Vietnam National Chemical Inventory

Not Listed.

IECSC)

Not Listed.

Korea Existing Chemicals List (KECL)

Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=O&request_locale=en

CAWEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

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