Material Safety Data Sheet

XELODA(R) Tablets (500 mg)

1. Product and Company Identification

Product name	XELODA(R) Tablets (500 mg)
Product code	SAP-10073476
Use	- pharmaceutical active substance (cytostatic)
Company information	Enquiries: Hoffmann-La Roche Inc. 340 Kingsland Street USA-Nutley, N.J. 07110-1199 United States of America Phone 001-973/235 50 00 E-Mail info.sds@roche.com US Emergency phone: (800)-827-6243 US Chemtrec phone: (800)-424-9300
Synonyms	- XELODA Film Coated Tablets 500 mg - XELODA F.C. Tablets 500 mg

2. Hazard identification

Emergency Overview

Form	oblong, biconvex tablet
Color	country-specific
Potential Health Effects	- Exposure: Inhalation, Ingestion, Skin contact, Eye contact - Target Organs: eye, skin, mucous membranes, gastrointestinal system - Acute Effects: May cause eye irritation., May cause skin irritation., May cause gastrointestinal effects., Signs and symptoms may include nausea, vomiting, diarrhea, constipation, cramps, and loss of appetite. - Chronic Effects: May cause skin irritation. - Carcinogenicity: formulation not listed by NTP, IARC or OSHA

GHS Classification	Health Hazards: 3.5 Germ cell mutagenicity (Category 2) H341 Suspected of causing genetic defects. 3.6 Carcinogenicity (Category 1B) H350 May cause cancer. 3.7 D Reproductive toxicity (Category 1B) H360D May damage the unborn child. 3.7 F Reproductive toxicity (Category 1B) H360F May damage fertility. Signalword: Danger Label:  Precautionary statements: - P201 Obtain special instructions before use. - P260 Do not breathe dust - P281 Use personal protective equipment as required. - P308 + P313 IF exposed or concerned: Get medical advice/attention.
Additional Health Information	- Some components of this product are considered potential reproductive effectors at high dosage. Refer to Section 11 (Toxicological information) for additional information on this product. - The most common dose-dependent adverse effects associated with therapeutic treatments include diarrhea, nausea, vomiting, sores in mouth and throat, abdominal pain, constipation, loss of appetite, dehydration, rash and dry, itchy or discolored skin. - additional effects may include nail problems, hair loss, tiredness, weakness, dizziness, headache, fever, chest, back, joint and muscle pain, trouble sleeping, taste problems and palms of the hands or soles of the feet tingle, become painful or swollen.
Note	- Cytostatics in general have to be classified as potentially carcinogenic, teratogenic and mutagenic. During handling any occupational exposure as well as environmental contamination have to be avoided.

3. Composition/Information on ingredients

Characterization	pharmaceutical active substance in the group of fluorinated cytosines *1

Ingredients	**Concentration**
Capecitabine CAS: 154361-50-9	~ 81 %
Microcrystalline cellulose CAS: 9004-34-6	~ 4 %

Magnesium stearate CAS: 557-04-0	~ 1 %
*1 referring to:	Capecitabine

4. First-aid measures

Eye contact	- rinse immediately with tap water for 10 minutes - open eyelids forcibly - consult a physician if irritation persists
Skin contact	- remove immediately contaminated clothes, wash affected skin with water and soap - do not use any solvents - consult a physician if skin irritation persists
Inhalation	- remove the casualty to fresh air and keep him/her calm - get medical treatment
Ingestion	- summon a physician immediately - let drink repeatedly plenty of water and induce vomiting (only if conscious), repeat several times
Note to physician	- treat symptomatically - in case of accidental exposure, keep a sample of urine in order to determine the content of fluoro-β-alanine

5. Fire-fighting measures

Suitable extinguishing media	- water spray jet, dry powder, foam, carbon dioxide
Flash point (liquid)	not applicable
Specific hazards	- very high probability of ignition of dust whirled up - formation of toxic and corrosive combustion gases (hydrogen fluoride, nitrogen oxides) possible - consider danger for the environment: dike spilled liquid
Protection of fire-fighters	- precipitate gases/vapours/mists with water spray - use self-contained breathing apparatus - avoid skin contact

6. Accidental release measures

Personal precautions	- ensure adequate ventilation - keep people away and stay on the upwind side
Environmental protection	- do not allow to enter drains or waterways - if the substance reaches waters or the sewer system, inform the competent authority - the solvent should be held back due to environmental protection
Methods for cleaning up	- collect spilled material (avoid dust formation) and hand over to waste removal in sealed containers

7. Handling and storage

Storage

Storage conditions	- below 30 °C - protected from light and humidity	
Validity	- 3 years, ≤ 30 °C, see "best use before" date stated on the label	

8. Exposure controls/Personal protection

Engineering Measures	- see 7.	

Monitoring

Threshold value (USA) air	- ACGIH-TLV: 10 mg/m3 - OSHA-PEL: 15 mg/m3 (total dust) - OSHA-PEL: 5 mg/m3 (respirable fraction) - NIOSH-REL: 10 mg/m3 (total dust) - NIOSH-REL: 5 mg/m3 (respirable fraction)	*2 *2 *2 *2 *2
Threshold value (Roche) air	- IOEL (Internal Occupational Exposure Limit): 0.01 mg/m3 (defined as 8-hour time-weighted average)	*1

Personal protective equipment

Hand protection	- protective gloves (eg made of neoprene, nitrile or butyl rubber)	
Eye protection	- safety glasses	
General protective and hygiene measures	- instruction of employees mandatory - shower after work recommended	

*1	referring to:	Capecitabine
*2	referring to:	Microcrystalline cellulose

9. Physical and chemical properties

Color	country-specific	
Form	oblong, biconvex tablet	
Solubility	26’000 mg/l, water (20 °C) 207’000 mg/l, ethanol (20 °C)	*1 *1
Partition coefficient	log P_{ow} ~ 4.5 (n-octanol/water) pH 7.4	*1
Melting temperature	116 to 117 °C	*1

*1	referring to:	Capecitabine

10. Stability and reactivity

Stability	-	stable under the conditions mentioned in chapter 7

11. Toxicological information

Acute toxicity	-	LD_{50} > 2'000 mg/kg (oral, rat)	*1
	-	LD_{50} > 2'000 mg/kg (oral, rat)	*3
Sensitization	-	slightly sensitizing (several species)	*1
Subchronic toxicity	-	high doses may damage proliferating cells (e.g. bone marrow, leucocytes)	*1
Mutagenicity	-	may cause mutations in vitro (clastogenic effect in lymphocytes)	*1
	-	lymphocyte test; evidence of clastogenicity	*1
Reproductive toxicity	-	suspected to be teratogenic and to lower parental fertility	*1
Note	-	may cause diarrhea, nausea, vomiting, loss of appetite, irritation of mucous membranes and alteration of the hemopoietic system (leukopenia) in dependance of the dose	*1
	-	cytostatics are potentially carcinogenic	*1

*1 referring to: Capecitabine
*3 referring to: Magnesium stearate

12. Ecological information

Inherent biodegradability	-	inherently biodegradable evidence for prior abiotic primary degradation as a rate-limiting process 29 %, 28 d 44 %, 56 d 55 %, 84 d (MITI Test II, OECD No. 302 C) *1
Ecotoxicity	-	barely toxic for algae (Selenastrum capricornutum) EbC_{50} (72 h) 58 mg/l ErC_{50} (72 h) 200 mg/l NOEC (72 h) 14 mg/l (OECD No. 201) *1
	-	barely toxic for planktonic crustaceans (Daphnia magna) EC_{50} (48 h) > 850 mg/l NOEC (48 h) 500 mg/l *1
	-	barely toxic for fish (rainbow trout) LC_{50} (96 h) > 867 mg/l NOEC (96 h) 867 mg/l *1
	-	barely inhibitory on aerobic bacterial respiration EC_{50} > 1000 mg/l (Activated Sludge Respir. Inhib. Test, OECD No. 209) *1

Mobility	-	medium adsorption to activated sludge, medium mobility (water-activated sludge, 3 h) K_d = 272 l/kg (activated sludge) (Adsorption to activated sludge in biodegradability test) *1

*1 referring to: Capecitabine

13. Disposal considerations

Waste from residues	-	observe local/national regulations regarding waste disposal
	-	incinerate in qualified installation with flue gas scrubbing
	-	DO NOT FLUSH unused medications or POUR them down a sink or drain. If available in your area, use takeback programs run by household hazardous waste collection programs or community pharmacies to dispose of unused and expired medicines. If you don't have access to a takeback program, dispose of these medicines in the household trash by removing them from their original containers and mixing them with an undesirable substance, such as used coffee grounds or kitty litter.

14. Transport information

Note	-	not classified by transport regulations, proper shipping name non-regulated

15. Regulatory information

TSCA Status	-	FDA Exemption - not on inventory
Reporting Requirements	-	The United States Environmental Protection Agency (USEPA) has not established a Reportable Quantity (RQ) for releases of this material.
	-	In New Jersey, report all releases which are likely to endanger the public health, harm the environment or cause a complaint to the NJDEPE Hotline (1-609-292-5560) and to local officials.
	-	State and local regulations vary and may impose additional reporting requirements.

16. Other information

Safety-lab number	-	BS-6606 *1
	-	BS-8569 *1
Edition documentation	-	changes from previous version in sections 9, 13

*1 referring to: Capecitabine

The information in this safety data sheet is based on current scientific knowledge. It should not be taken as expressing or implying any warranty concerning product characteristics.