




MATERIAL SAFETY DATA SHEET

Doc. ID: OAX05209-75 AA
 Issued (year/month/day) 2009/11/10

Section 1 Company and Product Identification

Product Name	AdvaSon AS100
Part Number	OAX05209
Product Use	For Research Use Only. See product literature for details.
Manufacturer	Beckman Coulter Biomedical GmbH Sauerbruchstraße 50 81377 Munich, Germany Tel: +49-89-579589-3540 Fax: +49-89-579589-3503 Email: support@advalytix.com
Distributor and Emergency Phone No.	 Refer to attached list, Document ID: 472050 , for local distributor and emergency phone numbers.

Section 2 Hazards Identification

Emergency Overview	Colorless; Clear; Liquid; Odorless Nonflammable aqueous solution. Skin, eye and respiratory tract irritant.		
Physical Hazards	No physical hazards were determined from a review of available literature.		
Potential Health Effects Summary	May cause skin, eye and respiratory tract irritation. Reproductive effects have been reported in several animal studies. See Section 11 Toxicological Information for more detailed health information.		
Potential Environmental Effects	No information available.		
Product Hazard Classifications	Meets Hazardous Criteria for Preparation/Mixture		
	EU: Not applicable	WHMIS: D2B	US OSHA: Hazardous

Section 3 Composition and Information on Ingredients

Hazardous Ingredients:				Hazard Classification of Pure Ingredients		
Chemical Name	CAS #	EINECS #	% by wt.	<u>EU</u>	<u>WHMIS</u>	<u>US OSHA</u>
Glycerol	56-81-5	2002895	< 30	No	D2B	Irritant

See Section 15 Regulatory Information for additional information on hazard classifications.

Section 4 First Aid Measures

Inhalation	If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.
Eye Contact	If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.
Skin Contact	In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If pain or irritation occur, obtain medical attention.
Ingestion	If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

Section 5 Fire Fighting Measures

Flammable Properties	Nonflammable aqueous solution.
Extinguishing Media	Use extinguishing media suitable for surrounding fire.
Special Fire and Explosion Hazards	No special hazards determined.
Hazardous Combustion Products	No combustion products posing significant hazards are expected from this product (an aqueous solution).
Protective Equipment for Firefighters	Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

Section 6 Accidental Release Measures

Personal Precautions	Use good laboratory procedures; avoid eye and skin contact.
Spill and Leak Procedures	Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.
Environmental Precautions	Contain spill to prevent migration.

Section 7 Handling and Storage

Handling Precautions	Use good laboratory procedures; avoid eye and skin contact.
Recommended Storage Conditions	Keep away from incompatible material (see Section 10). To maintain efficacy, store according to the instructions in the product labeling.

Section 8 Exposure Controls and Personal Protection

Exposure Limits	
US OSHA:	
Glycerol	15 mg/m ³ TWA (mist, total particulate); 5 mg/m ³ TWA (mist, respirable fraction)
ACGIH:	
Glycerol	10 mg/m ³ TWA (mist)
DFG MAK:	
Glycerol	50 mg/m ³ MAK (inhalable fraction); 100 mg/m ³ Peak (inhalable fraction)
NIOSH	None established
Japan	None established
Engineering Controls	Use in well ventilated area.
Respiratory Protection	Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.
Eye Protection	Safety glasses or chemical goggles should be worn to prevent eye contact.
Skin Protection	Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact.

Section 9 Physical and Chemical Properties

Physical State	Liquid
Color	Colorless
Transparency	Clear
Odor	Odorless
Odor Threshold	Not applicable
pH	Not available
Freezing Point	Not available
Boiling Point	Not available
Flash Point	Not applicable
Evaporation Rate	Not available

Section 9 Physical and Chemical Properties (Continued)

Flammability (Solid, Gas)	Not applicable
Flammable Limits	Not applicable
Vapor Pressure	Not available
Vapor Density	Not available
Specific Gravity	≈ 1.07 @20°C
Solubility	
Water	Miscible
Organic	Not available
Coefficient of Water/Oil Distribution	Not available
Autoignition Temp.	Not applicable
Decomposition Temperature	Not available
Percent Volatiles	Not applicable

Section 10 Stability and Reactivity

Stability	Stable in closed containers under normal temperatures and pressures.
Hazardous Incompatibilities	Strong acids Strong bases Strong oxidizers
Hazardous Decomposition Products	No decomposition products posing significant hazards would be expected from this product (a dilute aqueous solution).
Conditions to Avoid	Avoid contact with incompatible materials.

Section 11 Toxicological Information

Toxicity Data for Hazardous Ingredients	
Glycerol	Inhalation LC50 Rat: >570 mg/m ³ /1H; Oral LD50 Rat:12600 mg/kg; Dermal LD50 Rat:>21900 mg/kg
Primary Routes of Exposure	The most likely routes of exposure are skin and eye contact. Inhalation may occur if mists are formed in product use.
Potential Effects of Acute Exposure	Exposure to glycerol by inhalation of mists may cause respiratory tract irritation; skin or eye contact may cause irritation. Mildly toxic by ingestion. Symptoms may include headache, nausea and vomiting. Very high doses may cause kidney damage.

Section 11 Toxicological Information (Continued)

Potential Effects of Chronic Exposure	Repeated or prolonged exposure to glycerol by skin contact may cause dermatitis with irritation and swelling.
Symptoms of Overexposure	Symptoms may include: coughing, headache, fatigue, nausea, vomiting, dizziness, blurred vision, red and watery eyes, abdominal pain and unconsciousness.
Carcinogenicity	No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.
Other Effects	Reproductive effects have been reported in animal studies. Possible mutagen.
Conditions Aggravated by Exposure	None identified.

Section 12 Ecological Information

Ecotoxicity	
Glycerol	96 Hr LC50 Oncorhynchus mykiss: 51-57 ml/L [static]
Biodegradability	No information available.
Bioaccumulation	No information available
Mobility	No information available.
Other Adverse Effects	No information available

Section 13 Disposal Considerations

Waste Disposal	Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.
-----------------------	---

Section 14 Transport Information

Transportation of this product is not regulated under ICAO, IMDG, US DOT, European ADR or Canadian TDG.

Section 15 Regulatory Information

US Federal and State Regulations

SARA 313	No ingredients listed.
CERCLA RG's, 40 CFR 302.4	No ingredients listed.
California Proposition 65	No ingredients listed.
Massachusetts MSL	Glycerol is listed.
New Jersey Dept. of Health RTK List	Glycerol is listed.

Section 15 Regulatory Information (Continued)

Pennsylvania RTK	Glycerol is listed.
EU Labeling Classification	Preparation not classified.
Canada	
WHMIS Classification:	D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Non-reproductive cells mutagenicity)
PIN:	Not applicable
Ingredients on Ingredient Disclosure List:	None
Ingredients with unknown toxicological properties:	None
Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.	

Section 16 Other Information

Beckman Coulter Safety Rating	Flammability (Section V): 0 Health (Section XI): 2 Reactivity with Water (Section X): 0 Contact (Section VIII): 2	Code 0=none 1=slight 2=caution 3=severe
Revision Changes	Not applicable	
Risk Phrases and WHMIS Classification Description From Section 3	D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Non-reproductive cells mutagenicity)	
For further information, please contact your local Beckman Coulter representative.		

WHILE BECKMAN COULTER, INC. BELIEVES THE INFORMATION CONTAINED HEREIN IS VALID AND ACCURATE, BECKMAN COULTER MAKES NO WARRANTY OR REPRESENTATION AS TO ITS VALIDITY, ACCURACY, OR CURRENCY. BECKMAN COULTER SHALL NOT BE LIABLE OR OTHERWISE RESPONSIBLE IN ANY WAY FOR USE OF EITHER THIS INFORMATION OR MATERIALS TO WHICH IT APPLIES. DISPOSAL OF HAZARDOUS MATERIALS MAY BE SUBJECT TO LOCAL LAWS OR REGULATIONS.

Printed in U.S.A.