

MATERIAL SAFETY DATA SHEET
according to Directive 2001/58/EC

Date:21.06.2000
Revision(5): 29.10.2009

FIX&PERM®

1. Product Identification

Product Name:	FIX&PERM®
Cat. No:	GAS-002
Use:	Immunobiology
Company:	AN DER GRUB Bio Research GmbH Gerichtsberg 28; A-2572 Kaumberg Austria Branch Vienna: Ortlieb-gasse 25/1; A-1170 Vienna; Austria www.andergrub.com
For Product Information, call:	+43 1 489 42 14-0
or email:	office@andergrub.com
In Case of Emergency, Call: +43 1 406 4343-0 (Vergiftungsinformationszentrale – Poison Information Center Austria)	

2. Composition/Information on Ingredients

<i>Chemical Description: Double-Pack</i> <i>aqueous Solution A: Formaldehyde solution</i> <i>aqueous Solution B: not classified as hazardous</i>				
<i>Hazardous Ingredients:</i>	<i>CAS No:</i>	<i>EC No:</i>	<i>Symbol and Risk Phrases:</i>	<i>Percent:</i>
Formaldehyde <25%	50-00-0	200-001-8	Xn; R 20/21/22-36/37/38-40-43	5<C<10%

3. Hazards Identification

Hazards Information:	Xn; harmful
Potential Health and Environmental Effects	harmful by inhalation, ingestion and skin contact. Causes eye and skin irritation. May cause skin sensitization. Causes respiratory tract irritation. Limited evidence of a carcinogenic effect.
Classification System:	according to Austrians Chemicals Law, 1997, and Dir. 88/379/EEC, resp.

4. First Aid Measures

Eyes:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin:	Flush skin with plenty of soap and water
Inhalation:	Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. Get medical aid immediately.
Ingestion:	Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.
Notes to Physician:	Treat symptomatically.

5. Fire Fighting Measures

General Information:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Protective Equipment:	Wear a self-contained breathing apparatus in pressure demand and full protective gear.
Extinguishing Media:	CO ₂ , dry chemical, water spray or alcohol-resistant foam.

6. Accidental Release Measures

General information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Provide ventilation.

7. Handling and Storage

Handling:	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Avoid ingestion and inhalation.
Storage:	Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

8. Exposure Controls / Personal Protection

Engineering Controls:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentration below the permissible exposure limits.			
	Chemical name	MAK	NIOSH	OSHA
	Formaldehyde	0.5 ppm	0.016 ppm	0.75 ppm
Personal Protective Equipment				
-Skin:	Wear appropriate protective clothing to prevent skin exposure			
-Eyes:	Wear appropriate protective eyeglasses or chemical safety goggles.			

9. Physical and Chemical Properties

Appearance:	colorless liquid
Odor:	formaldehyde
pH:	n.a.
Boiling Point:	212 deg F (100°C)
Melting Point:	n.a.
Flash Point:	n.a.
Ignition Temperature:	n.a.
Autoignition Temperature:	n.a.
Explosion Limits:	n.a.
Vapor Pressure:	n.a.
Specific Gravity/Density:	>1.00
Solubility:	soluble in water
Partition Coefficient:	n.a.

10. Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Oxidizers
Incompatibilities with Other Materials:	Water reactive substances
Hazardous Decomposition Products:	Carbon monoxide, irritating and toxic fumes
Hazardous Polymerization:	Has not been reported

11. Toxicological Information

Formaldehyde:	
oral (LD50):	mouse: 42 mg/kg; rat: 100 mg/kg
skin (LD50):	rabbit: 270 mg/kg
Inhalation (LC50):	mouse: 400 mg/m ³ /2H; rat: 203 mg/m ³
Irritation, skin	not available
Irritation, eye:	rabbit: 750 µg Severe
Irritation, respiratory tract:	not available
Sensitization:	may cause skin sensitization
Carcinogenicity:	ACGIH: A2 – suspected human carcinogen
Other Studies:	See actual entry in RTECS

12. Ecological Information

General Information: FIX&PERM is expected to be slightly toxic to aquatic life.		
Toxicity	Fish (LC50):	not available
	D.magna (EC50)	
	Algae:	
Mobility:		n.a.
Persistence and Degradation:		n.a.
Bioaccumulation Index:		n.a.

13. Disposal Consideration

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved incinerator or disposed in an approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

not classified as hazardous under RID/ADR regulations

15. Regulatory Information

-The Product is classified according to "Österreichisches Chemikaliengesetz 1996, BGBl.I 53/1997". (In accordance with Directive 67/548/EEC, and Dir. 88/379/EEC, resp.)

-Transport Information is given in accordance with "ADR, Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf der Straße, 1997".

-Disposal Consideration is in accordance with "Österr. Abfallwirtschaftsgesetz BGBl. 155/1994 i.d.F. BGBl.434/1996 und ÖNORM S 2101, Katalog gefährlicher Abfälle"

-Information of Occupational Safety is given in accordance to Austrian "ArbeitnehmerInnenschutzgesetz, BGBl. 450/1994", NIOSH and OSHA, resp.

Chemical Identity of Hazardous Substance: Formaldehyde	CAS No.: 50-00-0
Label Hazard Warning:	
Symbol: Xn, harmful Contains Formaldehyd. May cause allergic reaction.	
R - Phrases	
20 Harmful by inhalation 21 Harmful in contact with skin 22 Harmful if swallowed	
36/37/38 Irritating to eyes, to respiratory system and to skin 40 Limited evidence of a carcinogenic effect 43 May cause sensitization by skin contact	
S - Phrases	
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice	
36 Wear suitable protective clothing 37 Wear suitable gloves 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible) 51 Use only in well ventilated areas.	

16. Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.