



Material Safety Data Sheet


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Section 1 - Product and Company Identification

Product name : ERB-X Solvent	
Other names : --	
Product use : Solvent for painting, cleaning, leather dyeing, and insecticide applications	
Supplier's name : San Fu Chemical Co., Ltd., Shan Hua Plant	
Supplier's address : 340 Hsiao Hsin Li, Shan Hua Town, Tainan Hsien, Taiwan, R.O.C.	
Supplier's phone : 06-5837608	Supplier's phone : 06-5837608
FAX. : 06-5839498	FAX. : 06-5839498

Section 2 - Hazards Identification

Classification :
1. Flammable Liquid Category 3
2. Serious Eye Damage/Eye Irritation Category 2
The Most Important Hazards and effect
Label element :
Hazard symbol : Flame, Exclamation mark

Signal word : Warning
Hazard statement :
■ Flammable liquid and vapor/mist
■ May cause eye irritation
Precautionary statement :
1. In case of contact with eyes, flush with plenty of water, and get medical attention immediately.
2. If contaminated, take off the clothes immediately.
Wear appropriate protective clothes, gloves, goggles or mask.
Others Hazard : --

Section 3 - Composition/Information On Ingredients

Mixture :

Component or impurities contributing to the hazard	Concentration or concentration range (%)	CAS No.
Propylene Glycol mono-methyl ether Acetate	>95%	108-65-6
Additives	<5%	--



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Section 4 - First Aid Measures

The First-aid Information :

- Inhalation :
 1. Leave area of exposure to breath fresh air immediately
 2. Get the medical attention immediately.
- Skin Contact :
 1. Removed contaminated clothing, shoes, and leather products.
 2. Use warm water to gently rinse the contaminated place for at least 10 minutes.
 3. If still feel irritation, seek medical attention immediately.
- Eye Contact :
 1. Immediately flush eyes with plenty of water for at least 10 minutes, lifting the upper and lower lids occasionally.
 2. If still feel irritation, seek medical attention immediately.
- Ingestion :
 1. Never give anything by mouth to an unconscious person.
 2. DO NOT induce vomiting.
 3. If conscious, drink 240ml to 300ml water.
 4. If vomiting instinctively, rinse mouth repeatedly.
 5. Get medical attention immediately.

The Most Important Symptoms and Hazardous Effects :

Protection of First-aiders : Wear protective gloves, avoid contact with the contaminants.

Notes to a Physician : If swallow, gastric lavage or laxative may be considered.

Section 5 - Fire Fighting Measures

Extinguishing Media : CO₂, dry chemical, water spray, alcohol foam, polymer foam

Specific Hazards when Fire-fight :

1. Vapors can flow along surfaces to distant ignition source and flash back.
2. Moderate fire hazard when expose to heat or flame.
3. Vapor-air mixtures are explosive.

Specific Fire-fighting Procedure :

1. If may be ineffective to extinguish the fire with water, but water could be used to cool exposed containers.
2. If the leaks are not caught on fire, use water to disperse vapor and dilute the leaks to nonflammable.
3. If safe to do so, move undamaged containers from fire area.
4. For fires in cargo or storage area, cool containers with water from unmanned hose holder or monitor nozzles until fire is out. If this is impossible, then take the following precautions: keep unnecessary people away, isolate hazard area, and deny entry. Let the fire burn.
5. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.

Specific Protection of Firefighters : Do not enter fire area without proper protection. Wear positive pressure self-contained breathing apparatus.

Section 6 - Accidental Release Measures

Personal Precautions :



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Environmental Precautions :

1. Clean up immediately.
2. Stop leak if safe to do so.
3. Well ventilation.
4. Prevent entry into sewer.

Methods for Cleaning up :

Absorb spill with inert material, and then burn into ashes in the incinerator. .

Section 7 - Handling and Storage

Handling :

1. Keep away from spark or any source of ignition.
2. Avoid producing vapor and mist.
3. Keep well ventilation.
4. Handling amount of usage should be kept to a minimum.
5. Consider install equipment to prevent fire and spilling.
6. Label the container and keep the container closed while not in use.

Storage :

1. Store in cool and well ventilated area.
2. Stay away from sunshine.
3. Keep container tightly closed and sealed until ready for use.
4. Separate the working area and storage place. Stay away from any incompatible material.
5. Stay away from spark, heat, or any sources of ignition.
6. The barrels that store the flammable liquids should install the pressure reducing valve and vacuum relief valve.
7. The barrels should be maintained and checked regularly.

Section 8 - Exposure Controls & Personal Protection

Engineering measures :

Whole and local ventilation system.

Control parameters

TWA	STEL	Ceiling	Biological standards
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Personal protective equipment :

- Respiratory Protection : dust-proof mask, or respirators if necessary.
- Hand Protection : chemical protective butyl rubber gloves
- Eye Protection : safety goggles or mask
- Skin and Body Protection : long-sleeve protective clothing

Hygiene measures :

1. Remove contaminated clothes, clean thoroughly before reuse or disposal. Must advise the danger to the laundry worker.
2. Smoking, eating, and drinking are prohibited in work area.
3. Wash hands thoroughly after handling this substance.
4. Maintain a clean work environment.

Section 9 - Physical & Chemical Properties

Appearance : liquid	Odor : ester
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Color : --	Melting Point: --
pH value : --	Boiling point/boiling range : 146°C
Flammability: --	Flash point : 42°C
Decomposition temp : --	Test method : close
Auto ignition temp : 315°C	Explosion properties : 1.5%~7.0% (200°C)
Vapor pressure : 3.8mmHg @25°C	Vapor density : 4.6 (air = 1)
Density : 0.966 (20°C)	Solubility : (18.5%)water and organic solution
log Kow : --	Evaporation Rate : 0.39 (n-Butyl acetate = 1)

Section 10 - Stability & Reactivity Data

Stability : stable under ordinary conditions of use and storage
Possible hazardous reactions under specific conditions : oxidizers may cause fire or explosion.
Conditions to avoid : heat, static electricity, spark, air, sunshine, moisture
Materials to avoid : oxidizers
Hazardous decomposition products : CO

Section 11 - Toxicological Information

Route of exposure : inhalation, skin, ingestion, eye
Symptoms : sore throat, coughing, shortness of breath, difficulty in breathing, cyanosis, irritation to skin and eyes, stomachache, vomiting, kidney
Immediate Toxicity : <ul style="list-style-type: none">■ Skin : irritation to nose or throat. If expose to high concentration, may cause inhibitory nerve. Other symptoms include dizziness, pain in chest, headache, nausea, vomiting, tired, body dysfunction, or even unconsciousness.■ Inhalation : May not cause irritation, but will be absorbed quickly.■ Eye : If expose over 100ppm may cause irritation. If expose over 250ppm may produce tear.■ Ingestion : Low toxic. Ingestion of large amounts may cause inhibitory nerve.<ul style="list-style-type: none">● LD₅₀: 8532 mg/kg (Rat, Oral)● LC₅₀: --
Specific effects : <ol style="list-style-type: none">1. Prolonged exposure may cause irritation to the upper respiratory tract and side effect on liver and kidney.

Section 12 - Ecological Information

Ecotoxicology : <ul style="list-style-type: none">■ LC₅₀(fish) : 5000µg/L/24 years (Petromyzon marinus)■ EC₅₀(Aquatic Invertebrates) : --■ Bioconcentration factor (BCF) : --



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Persistence and degradability :

- Half-Life (Air) : --
- Half-Life (Water surface) : --
- Half-Life (Groundwater) : --
- Half-Life (Soil) : --

Bioaccumulative potential : --

Mobility in soil : --

Other adverse effects : --

Section 13 - Disposal Considerations

Methods of disposal : It's better to incinerate the waste solution. Dispose of as special waste in compliance with local and national environmental laws and regulations.

Section 14 - MSDS Transport Information

UN classification number : --

Proper D.O.T Shipping Name : --

Hazard Class :

1. DOT 49 CFR: 3 flammable liquid; Packing: 3
2. IATA/ICAO: 3
3. IMDG: 3

Packing Group : --

Marine pollution : no

Specific precautionary transport measures and conditions : stay away any improper storage and source of fire. Follow the local and national regulations.

Section 15 - Regulatory Information

Regulations :

1. Labor Safety and Health Facilities Regulations
2. Toxic Chemical Substances Labeling and Safety Date Regulations
3. Permissible Exposure Limits of Hazardous Substances in the Work Environment
4. Road Traffic Safety Regulations
5. Industrial Waste Storage and Disposal Regulations

Section 16 - Other Information

Literature references	1. RTECS Data Bank, TOMES PLUS CD, Vol. 68, 2006 2. ChemWatch Data Bank, 2006-1 3. OHS MSDS Data Bank, 2006 4. HSDB Data Bank, TOMES PLUS CD, Vol. 68, 2006
Prepared by	Supplier : San Fu Chemical Co., Ltd. Shan Hua Plant
	Address : 340 Hsiao Hsin Li, Shan Hua Town, Tainan Hsien, Taiwan, R.O.C.
	TEL : 06-5837608 FAX : 06-5839498
	Name : Chunfel Chang



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Remarks	Symbols Explanations: "--" No information is available at this time. "/" Not applicable to this substance.		
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