

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : SCALE REMOVER / DESCALER
Product Code : FAST 100
General Description : Descaler with acid base
Chemical Nature : Acid Base

Manufacturer : PT.MEGAH GUMILANG CHEMIKATAMA
Jl. Yos Sudarso No. 44
Tangerang, INDONESIA

Telephone / Fax. : (021) 5412277,70704543/ (021) 5587085

2. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical entity	Proportion
Hydro Choleric Acid	01 to 50 %
Surfactant / Inhibitor	01 to 10 %
Dyes	01 to 03 %

Composition Comments:

Refer to section eight for exposure limits on ingredients.

3. HAZARDS IDENTIFICATION

Concentrate may cause irritation to eyes and skin. Prolonged exposure to product mist or vapors may cause respiratory irritation.

Sensitization: No known information.

Reproduction No known information

Health Warnings INHALATION. Can irritate airways and lungs. Inhalation of product vapor or mist may cause irritation of mucous membranes in nasal passages and throat. Heating can generate vapors that may cause respiratory irritation, nausea and headaches. Inhalation hazard at room temperature is unlikely due to the low volatility of this product. SKIN CONTACT. Slightly irritating. Repeated or prolonged contact can results in drying of the skin. EYE CONTACT. Irritating. May cause slight eye irritation. May cause very slight transient (temporary) corneal injury. INGESTION. Can cause discomfort. Main hazard, if ingested, is aspiration into the lungs and subsequent pneumonia.

Route of Entry Skin and eye contact. Ingestion. Inhalation.

4. FIRST AID MEASURES

Inhalation: Inhalation under ambient conditions is normally not a problem. If overcome by inhalation of product, immediately remove from source of exposure. Get medical attention if any discomfort continues. For breathing difficulties oxygen may be necessary. If breathing stops, provide artificial respiration.

Ingestion: DO NOT induce vomiting. Get medical attention immediately.
Skin: Immediately remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eyes: Important! Immediately rinse with water for at least 15 minutes. Get medical attention if any discomfort continues.

5. FIRE FIGHTING MEASURES

Flash Point (°F): None
Extinguishing Media: Use: Dry chemicals, sand, dolomite, etc. Foam. Carbon dioxide (CO₂).
Special Fire Fighting Procedures: Use water spray to keep fire exposed containers cool and disperse vapors. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Keep run-off water out of sewers and water sources. Dike for water control. Avoid water in straight hose stream; will scatter and spread fire.
Unusual Fire & Explosion Hazards: Pressure will increase in over heated, closed containers.
Hazardous Combustion Products: Acid smoke/ fumes. Oxides of: Carbon (CO₂), Nitrogen.
Protective Measures in Case of Fire: Self-contained breathing equipment and chemical resistant clothing recommended.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Minimize skin contact. Avoid breathing vapors; wear appropriate respirator.
Precautions to Protect the Environment: Keep product out of sewers and watercourses by dicing or impounding, advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with applicable government regulations.
Spill Clean-Up Procedures: Contain spill. Neutralize and absorb small amounts. Collect and return large amounts to shipping containers. Rinse spills area with water.

7. HANDLING AND STORAGE

Handling Precautions: Do not reuse container. Keep lid closed when not in use. Do not store or mix with strong oxidizers. Ventilated well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Eye wash and emergency shower must be available at the work place.
Storage Precautions: Keep away from heat, sparks and open flame. Storage separate from strong acids and oxidizers.
Storage Criteria: Chemical storage.

8. PERSONAL PROTECTION

Protective Equipment:



Engineering Controls:

Use engineering controls to reduce air contamination to permissible exposure level.

Ventilation:

No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.

Respirators:

No specific ventilation requirements noted, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

Protective Gloves:

For prolonged or repeated skin contact use suitable protective gloves.

Eye Protection:

Wear splash-proof eye goggles to prevent any possibly of eye contact.

Protective Clothing:

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygienic Work Practices:

Wash at the end of each work shift and before eating, smoking and using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State:	Red Liquid.
Color:	Red Ethereal
Odor:	Mild Acid (or faint).
Solubility Description:	Soluble in water.
Density/Specific Gravity (g/ml)	> 1 Temperature (°F): > 90°C
Vapor Density (air=1):	> 1
Vapor Pressure:	< 0.01mmHg
Evaporation Rate:	> 1 Reference: BuAc=1
PH-Value, Conc. Solution:	0 - 1

10. STABILITY AND REACTIVITY

Stability:	Normally stable
Conditions to Avoid:	Avoid heat, flames and other sources of ignition.
Hazardous Polymerization:	Will not occur.
Polymerization Description:	Not applicable.
Hazardous Decomposition Products:	Hydrocarbons. Oxides of: Carbon. Nitrogen.

11. TOXICOLOGICAL INFORMATION

Toxicological Information:

No experimental toxicological data on the preparation as such is available.

12. ECOLOGICAL INFORMATION

Toxicological Information:

There is no ecological data on the product itself.

13. DISPOSAL CONSIDERATIONS

Disposal Methods:

Spilled materials, unused contents and empty containers must be disposed of in accordance with local, state and federal regulations.

14. TRANSPORT INFORMATION

Product RQ:

N/A

U.S. DOT:

N/A

UN/NA No.:

No DOT label requirement noted

U.S DOT CLASS:

Non-Hazardous (No label required)

15. OTHER INFORMATION

NFPA HAZARD RATING:

HEALTH:

Irritation, minor residual injury (1)

FLAMMABILITY:

burns only if pre-heated (1).

REACTIVITY:

N/A (0).

SPECIAL HAZARD:

N/A

NPCA HMIS HEALTH:

1 Slight Hazard

PERS.PROTECT.INDEX:

B

DATE OF ISSUE:

28/08/2002

DISCLAIMER:

While the information and recommendations set forth herein are believed to be accurate as of the date thereof, FAST Chemical Incorporated makes no warranty with respect thereto and disclaims all liability from reliance therein.