Material Safety Data Sheet

Pickling Dip Liquid (RXSOL-68-6805-005)

1. Product and Company Identifaction

Product Name	**Pickling Dip Liquid**
Part Number	**RXSOL-68-6805-005**

Company Details:
RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Stock Point ::: Mumbai, Kandla Gandhidham, Chennai, Kolkata, Visakhapatnam, Muscat, Fujairah

Phone	+91 22 27815541 / 42
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	mail@rxmarine.com

2. Composition / informationon ingredients

Chemicals /Ingridents	CAS No.	EC No.	Contents weight-%	Hazard symbol/ Risk phrase*
Nitric acid, HNO3	7697-37-2	231-714-2	20-40	O, C: R8, R35
Hydrofluoric acid, HF	7664-39-3	231-634-8	10-15	T+, C: R26, 27, 28-35

Other ingrdient and surfactan is not hazardous.

Additional information Classification according to directive 67/548/EEC.Symbols and risk phrases are for concentrated substances.

3. Hazards Identification

CLASSIFICATION:

Health hazard in case of accidental exposure (R-phrases):	Very toxic by inhalation, contact with skin and if swallowed. It causes severe burns.
Environmental effects:	Pickling Fluid will strongly reduce pH in water. Must be neutralised. See also section 12.
Physical and chemical risks:	When heated nitrous gases can be developed.

LABEL ELEMENTS:
Hazard symbols:

Very toxic Corrosive

Risk phrases:
R 26/27/28
R 35

4. First Aid Measures

Inhalation: Remove to fresh air. Keep victim lying down, quiet and warm. Rinse nose and mouth with water. Might require assistance with breathing. Seek medical care even if only slight discomfort occurs.

Ingestion: If victim is conscious and alert give milk or water to drink. Thereafter 20 lime tablets dissolved in 2 L of water. Do not induce vomiting. Seek medical care.

Skin contact: Rinse immediately with plenty of water, then treat with 2.5% Calcium Gluconate gel, or wash with soda water , soap etc.

Eye contact: Protect intact eye. Rinse immediately with plenty of water for at least 15 minutes and seek immediate medical care (eye specialist). Inform the doctor that the injury has been caused by contact with hydrofluoric and nitric acid mixtures.

5. Fire-fighting Measures

EXTINGUISHING MEDIA:
Use most appropriate media to extinguish surrounding fire .

SPECIAL HAZARDS ARISING FROM THE MIXTURE:
Chemical exposure risks caused by released gases/vapours:
The Pickling Fluid will emit toxic fumes and nitrous fumes when exposed to heat/fire.

ADVICE FOR FIREFIGHTERS:
Danger of fire/explosion:
Fluid is non-flammable. Bottles close to fire should be removed or cooled with water.

Protective clothing for firemen:
Appropriate protective acid-resistant clothing should be used.

Breathing protection:
Gas mask with filter of chlorine type B (grey) and dust filter P2, according to CEN (Central European Norms).

How to clean or destroy soiled fire equipment:
Thoroughly wash with water.

6. Accidental Release Measures

Personal precautions:
Avoid direct contact. If there is still a risk of direct contact or stench protect with some form of acid-resistant material. Wear eye protection, skin protection, rubber gloves and breathing apparatus. Keep working area well ventilated.

ENVIRONMENTAL PRECAUTIONS:
Spillage (water, air, soil):
Prevent spillage from entering sewage or public waters or nature.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP
Methods for cleaning up:
Neutralise with RXSOL Neutralising Agent or a strong alkaline compound i.e. slaked lime. Embank with sand. Arrange for pick up. Rinse with plenty of water.Spillage should be picked up and disposed of in full compliance with federal, state and local regulations as acid waste.

7. Handling and Storage

Technical measures:
Working place and methods should be worked out in order to avoid direct contact. Work and storage area should be well ventilated. A closed rinse water system with filtration and reuse of clear water is recommended.

To prevent fire and explosion:
Bottles close to fire should be removed or cooled with water.

Precautions:
Avoid fume generation and accumulation by using in a well-ventilated area. Use in areas having local exhaust and general ventilation.

Storage conditions:
Keep containers securely closed when not in use and in an upright position. Store in areas where temperature remains between 0-30 oC at all times.

Packaging materials:
Package must be of acid resistant plastic material.

SPECIFIC END USES
See section 1. Contact the manufacturer for more information.

8. Exposure controls and personal protection

CONTROL PARAMETERS
Hydrofluoric acid:
EU: IOEL 1,5 mg/m3 (8 hr), 2,5 mg/m3 (15 min)

Nitric acid:
EU: IOEL 0,05 mg/m3 (8 hr)

Sulphuric acid:
EU: IOEL 0,05 mg/m3 thoracic fraction (8 hr)

Chronic effects, inhalation:
Exposure to strong inorganic acid mists containing sulphuric acid is known to be a human carcinogen, based on sufficient evidence of carcinogenicity from studies in humans.

EXPOSURE CONTROLS
Respiratory protection:
Gas mask with a filter of the chlorine type B (grey) and dust filter P2

Hand protection:
Acid resistant rubber gloves.

Eye protection:
Face shield.

Skin and body protection:
Rubber boots and acid resistant clothes, which covers all body parts exposed to splashes.

Specific hygienic measures:
Do not inhale fumes, avoid contact with eyes, skin and clothes. It is not allowed to eat, drink and smoke at workplace. Remove contaminated clothes immediately. Wash hands and face thoroughly after working with pickling paste.

Environmental exposure controls: See section 6 and 7.

9. Physical and chemical properties

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Physical state (form, colour, smell) at 20oC:	Colourless liquid with a pungent smell.
Boiling point:	100oC - 105oC
Flash point / Explosion properties:	Not applicable
Specific temperatures:	Solid-fluid 40oC, Fluid-gas 50-60oC (nitric fumes)
Vapour pressure at 20oC:	0.01 kPa
pH:	1 at 20oC
Density:	1.1-1.2 g/cm3 at 20oC
Solubility in water at 20oC:	100 weight %

10. Stability and reactivity

REACTIVITY	Reacts vigorously with base metals and alkaline substances
CHEMICAL STABILITY	Stable under normal conditions.
POSSIBILITY OF HAZARDOUS REACTIONS	Polymerization will not occur
CONDITIONS TO AVOID	Avoid high temperatures, must not be exposed to direct sunshine. When heated, nitrous gases will be developed.
INCOMPATIBLE MATERIALS	Contact with low alloyed metals and alkaline compounds causes a heavy exothermic reaction with heat development and stench risk.
HAZARDOUS DECOMPOSITION PRODUCTS	Will emit nitrous gases, hydrofluoric acid and sulphuric oxides.

11. Toxicological information

Effects on the skin:
Gives corrosive damages with yellowish discoloration of the skin, blisters and slow-healing wounds.

Effects on the eyes:
Causes intensive pain and corrosive damages. Risk of irreparable damage to the eyes.

After ingestion:
Gives corrosive damages with burning pain, possibly severe general effect and damage to kidneys and liver.

Upon inhalation:
Inhalation of fumes or mist might cause aches, cough and difficulty in breathing. Risk for pulmonary oedema.

Additional information:
Symptoms will not appear immediately.

12. Ecological information

TOXICITY (Hydroflouric acid):	Fish (fresh water), 60ppm, lethal (time period not specified) LC50 Fish 96h: 441 mg/l (Gambusia affinis) EC50 Daphnia 48h: 10-100 mg/l IC50 Algae 72 h: 2 mg/l
PERSISTENCE AND DEGRADABILITY	Will be protolized in water to H+, NO- 3 , F-
BIOACCUMULATIVE POTENTIAL	The product is not regarded as bioaccumulative.
MOBILITY IN SOIL	The product is viscous and, after a period could hike down to the groundwater.
RESULTS OF PBT AND vPvB ASSESSMENT	Non-current
OTHER ADVERSE EFFECTS	Acute effects due to the lowering of pH and burns, i.e. there is a significant decrease in the number of algae at pH6.

13. Disposal considerations

Neutralize the product with lime soda or ash before dispose. Upon neutralization of remaining acid rests and rinsing water can heavy metals precipitate and these constitute hazardous waste.

Additional information:
Effluent must be separated and disposed of as acidic waste. The product has in the undiluted form toxic effects on soil and water. The remaining acid rests and rinsing water can lower the pH value of wastewater and therefore should not be released until it has undergone a neutralization process.

14. Transport information

UN-Classification No:
2922

UN PROPPER SHIPPING NAME
CORROSIVE LIQUID, TOXIC, N.O.S. (hydrofluoric acid, nitric acid)

TRANSPORT HAZARD CLASS(ES)
Classification Code:
CT1

PACKING GROUP
II

ENVIRONMENTAL HAZARDS
IMDG (Sea):
Class 8 (6.1) EmS F-A, S-B
Marine Pollutant: No

ADR/RID (road, rail):
Class 8 (6.1)
Tunnel restriction code: (E)

IATA/DGR (air):
Class 8 (6.1)

ADDITIONAL INFORMATION
The product is to be transported according to dangerous goods regulations.

15. Regulatory information

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS
Regulations:

1907/2006/EC, 1272/2008/EC Table 3.1, 67/648/EEC, EWC 2000/532/EC

Other regulations:
IMDG
ADR/RID
IATA/DGR

Chemical Safety Assessment:
Has not been carried out for this product (or substances in the preparation).

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 event shall Rx Marine International 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 Rx Marine International has been advised of the possibility of such damages.

DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.