



## **MATERIAL SAFETY DATA SHEET (M.S.D.S.)**

Safety data sheet according to 91/155/EEC

Date / Revised:

Product: **MODIFIED ESTER**

### **1. Substance / preparation and company identification**

**SUBSTANCE NAME: MODIFIED ESTER  
(MAKGREEN – NPPX)**

**Use: Plastisizer for PVC**

#### **Company:**

**Company Name & Address: MAKWELL ORGANICS PVT.LTD.**

A-506, Bhaveshwar Plaza, L.B.S. Marg,  
Opp. Shreyas Cinema, Ghatkopar (West)  
Mumbai 400086.

Telephone : 022-25004848  
Fax No. : 022-25004800  
E-mail address : makwell@vsnl.com

Emergency information :  
Emergency Information Address  
Telephone :  
Telefax number :

### **2. Composition / information on ingredients**

#### **Chemical characterization - EPOXY FATTY ESTER**

CAS Number : 68082-35-9

S 24/25 : Avoid contact with skin and eyes

S 38 : In case of insufficient ventilation, wear suitable respiratory equipment.

Precaution : For industrial use only. Not to be taken internally.

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### 3. Hazard identification

#### Potential Health Effects

Eye: May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

Skin: May cause mild skin irritation. Symptoms may include redness & burning of skin.

Swallowing: Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

### 4. First aid measures

Eyes	Immediately wash with large quantities of water for at least 15 minutes. Seek medical assistance if effect persists.
Skin contact	immediately wash the affected area with copious quantities of soap and water for at least 15 minutes. Seek medical assistance if irritation persists.
Ingestion	Give water to drink and induce vomiting. Use fingers in the throat. Seek immediate medical assistance.
Inhalation	Remove victim from exposure-avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing . Allow patient to assume most comfortable position and keep rest until fully recovered. Seek medical assistance if effect persists.

### 5. Fire fighting measures

Flash Point	> 170°C
Extinguishing Media	Dry Chemical, Foam or Water Fog
Special fire fighting Protection	Protect against decomposition products. Wear NIOSH / MSHA approved SCBA and full protective equipment.
Unusual fire & explosion hazards	Heating of non-vented container may cause explosion. Keep surrounding containers cool with water spray. Water or foam may cause frothing.

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## 6. Accidental release measures

Steps if material released/spills	Wear protective equipment, dike area. Prevent material from entering waterway. Use absorbent material, shovel into disposal container or pump material into reclaim from diked area.
Waste disposal methods	According to all local, state and federal regulations.
Mopping	Mix with a slightly moist absorbent like sand, earth or sawdust. Shovel into waste container. Remove waste from workplace.
Special precautions	Wear slip resistant footwear. Material is slippery and conducive to falls.

## 7. Handling and storage

Container Storage	Store in lacquer coated mild steel or high density hylene polyethene containers. Avoid mild steel, PVC or low alloy steels.
Tank storage	Store in Polypropylene lined tanks
Materials to Avoid	Avoid highly reactive elements such as the Alkali and Alkaline Earth metals which have a strong affinity for halogens. Avoid strong oxidizing and reducing agents.
Conditions to avoid	Do not store near open flame or heat. Store in well ventilated area. Use local exhaust if necessary.
Other precautions	Do not wear contaminated clothing.

## 8. Exposure controls/ personal protection

Respiratory protection	Not required under normal conditions. NIOSH / MSHA approved respirator appropriate for exposure of concern.
Hand protection	Impervious gloves are recommended.
Eye protection	Chemical work goggles and full length face shield recommended.
Body protection	Long sleeve and trousers recommended.
Other protective equipment	Eye wash, safety shower should be always available and used whenever necessary.
Hygiene measures	Wash prior to eating, drinking, smoking or use of rest-room (toilet) and when leaving work.
Exposure Limits	No value assigned for this specific material by the National Health and Medical Research Council.

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## 9. Physical and chemical properties.

1. Appearance : Light Yellow Liquid
2. Ester content : 99.4%
3. Specific Gravity : 0.915 - 0.930
4. Acid Value : 1 Max
5. Moisture : 0.20% Max
6. Molecular Weight : 308
7. Carbon Chain : 18
8. Flash Part : 170

## 10. Stability and reactivity

### Hazardous Polymerization

Product will not undergo hazardous polymerization.

### Hazardous Decomposition

May form : Hydrogen chloride, various hydrocarbons

### Chemical stability

Stable

### Incompatibility

Avoid contact with : alkali metals, excessive heat, powdered metals.

## 11. Toxicological information

Oral LD 50	>4000 mg/Kg.
Skin	Mild irritant
Eyes	Mild irritant
Other Effects	Animal studies have showed that this compound to cause liver effects following prolonged and repeated exposure at high levels.
Mutagenicity	In - vitro screening tests for mutagenicity with the product gave negative results.

Carcinogenicity Oral dosing studies carried out by the US National Toxicology Program over 2 years on rat and mice showed an increase incidence of malignant tumors following administration of chlorinated Paraffins wax. This evidence indicates that the product is carcinogenic on animals when dosed orally at very high levels, thus stressing the need for care in handling minimise exposure from all routes to as low a level as is reasonably practicable.

## **12. Ecological Information**

**No data**

## **13. Disposal considerations**

Waste Management Information

Destroy by incineration in accordance with applicable regulations.

## **14. Transport information**

DOT Information – 49 CFR 172.101

DOT Description :

No data

Container / Mode :

No data

NOS Component:

None

RQ (Reportable Quantity) – 49 CFR 172.101

Not Applicable

Shipping Symbol : NF

Hazard Class : N.O.I.

## **15. Regulatory information**

R 36/37/38 Irritating to eyes, respiratory system and skin.

S 24/25 Avoid contact with skin and eyes

S 38 In case of insufficient ventilation, wear suitable respiratory equipment.

Precaution For industrial use only. Not to be taken internally.

## **16. Other information**

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.