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**MATERIAL SAFETY DATA SHEET**

**MSDS # PMC/RC/018/06**

Updated on 02 - Jan - 2006  
Product Name ACCINOX TQ  
Revision Number +REV 05  
UN Number 3077  
CAS No. 26780-96-1

|                       |   |
|-----------------------|---|
| Health Hazard :       | 1 |
| Fire Hazard :         | 1 |
| Reactivity :          | 0 |
| Personal Protection : | X |

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING**

**PRODUCT NAME:** ACCINOX TQ

Address/Phone No : PMC Rubber Chemicals India Private Limited  
Works & Registered Office:  
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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

**PRODUCT DESCRIPTION** Polymerised 1,2-dihydro-2,2,4-trimethylquinoline

| HAZARDOUS INGREDIENT(S)                                       | CAS No     | Symbol | R Phrases |
|---|------------|--------|-----------|
| Polymerised 1,2-dihydro-2,2,4-trimethylquinoline (~100 % w/w) | 26780-96-1 | N      | R 52,53   |

**3. HAZARDS IDENTIFICATION**

Repeated and/or prolonged contact may cause irritation.  
May cause slight eye irritation  
A possible animal carcinogen and should be treated with caution.

See **OTHER INFORMATION**

The product may contain trace amounts of bis-aniline.

#### **4. FIRST-AID MEASURES**

|              |   |
|--------------|---|
| Inhalation   | Remove patient from exposure.<br>Obtain medical attention if ill effects occur.   |
| Skin Contact | Remove contaminated clothing. Wash skin immediately with soap and water. If symptoms (irritation or blistering) occur obtain medical attention.   |
| Eye Contact  | Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Obtain medical attention if ill effects occur. |
| Ingestion    | Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain medical attention.                  |

#### **Further Medical Treatment**

Symptomatic treatment and supportive therapy as indicated.

#### **5. FIRE-FIGHTING MEASURES**

Combustible,.Flash Point : 150 - 204 °C (open cup)  
Protect from sparks (dust explosion risk)  
Combustion or thermal decomposition will evolve very toxic, irritant and extremely flammable vapours. Combustion products nitrogen oxides, carbon monoxide and carbon dioxide.

Extinguishing Media            Water spray, foam, dry powder or CO<sub>2</sub>.  
Do not use water jet.

Fire Fighting &  
Protective Equipment :        A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

#### **6. ACCIDENTAL RELEASE MEASURES**

Do not allow to enter drains, sewers or watercourses.  
Clear up spillages. Transfer to a container for disposal or recovery.  
Wear protective clothing to minimise contact with eyes, skin and clothing.  
Avoid breathing dust, turn off any ignition source in the area.

## 7. HANDLING AND STORAGE

### 7.1 HANDLING

- Avoid contact with skin and eyes.
- Wash thoroughly with soap and water after handling.
- Keep away from heat, sparks and flame.
- Avoid creating dust cloud in handling, transfer and clean ups.
- Keep container closed when not in use.
- Do not reuse containers.

### 7.2 STORAGE

- Keep away from oxidising agents, acids, alkalis, moisture, heat and direct sunlight.
- Suitable containers High density polyethylene (HDPE) laminated paper bags with polythene liner inside.

Storage Temperature : Ambient.  
Storage Life : 1 year(s)

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Wear suitable gloves and eye/face protection.
- Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely.

### Occupational Exposure Limits

Not listed for product but 2.5 mg/m<sup>3</sup> for total dust is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                         |                         |
|-------------------------|-------------------------|
| Form                    | Beads / pastilles       |
| Colour                  | Dark brown              |
| Odour                   | Slight aromatic         |
| Boiling Point (Deg C)   | >300°C                  |
| Melting Point (Deg C)   | Softens @ 90 (approx)   |
| Flash Point (Deg C)     | 150 - 204°C (open cup). |
| Flammable Limits        | No data.                |
| Auto Ignition           |                         |
| Temperature (Deg C)     | 475                     |
| Explosive Properties    | No data.                |
| Oxidising Properties    | No data.                |
| Vapour Pressure (mm Hg) | No data.                |

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|                    |   |
|--------------------|---|
| Solubility (Water) | Insoluble   |
| Solubility (Other) | Soluble in toluene, acetone                           |
| Specific Gravity   | 1.08 @25°C  |
| Molecular Weight   | (173.3)n  |
| Molecular Formula  | (C12-H15-N)n (Polymerised product :Complex Structure) |

## 10. STABILITY AND REACTIVITY

Stability : This material is stable at NTP.  
Materials to avoid : Incompatible materials ; oxidising agents, acids and alkalis.  
Hazardous Decomposition Product(s) See 'Fire fighting measures'.

## 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity           LD50 (Rat) : 2250 mg/kg  
Acute Dermal Toxicity       LD50 (Rabbit) : 5000 mg/kg

Ingestion     Low oral toxicity

Inhalation     Combustion or thermal decomposition will evolve  
very toxic and irritant vapours.

Skin Contact Repeated and/or prolonged contact may cause irritation in man.  
Slight irritant to rabbit skin.

Eye Contact May cause eye irritation in man.  
Mild irritant to rabbit eyes.

Long Term Exposure : Repeated exposure of animals to high levels produces  
adverse effects on the liver.  
A possible animal carcinogen and should be treated with  
caution.  
There is no evidence of mutagenic potential.

See **OTHER INFORMATION**

## 12. ECOLOGICAL INFORMATION

Substance may be classified as Dangerous for the Environment  
Acute Fish Toxicity           LC50 (Rainbow Trout) (96 hour) 50 mg/l  
  LC50 (Bluegill Sunfish) (96 hour) 55 mg/l  
  EC50 (Daphnia Magna) (48 hour) 5.8 mg/l

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Acute Algae Toxicity      EC50 Algae (96 hour) >1000 mg/l  
Partition Coefficient      3.2 log P (Octanol/Water)  
Environmental Persistence: 8 % CO<sub>2</sub> evolution (Low Biodegradation)

### 13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with local, state or national legislation.  
This material and/or its container must be disposed of as hazardous waste.

### 14. TRANSPORT INFORMATION

Not Classified as Dangerous for Transport.

DOT Classification :      Not regulated by DOT  
IMDG Classification :      Not regulated by IMDG  
ICAO Classification :      Not regulated by ICAO

### 15. REGULATORY INFORMATION

Not Classified as Dangerous for Supply/Use.

Hazard Symbol :      Dangerous for the Environment, N



Risk Phrases:      R52 Harmful to aquatic organisms  
R53 May cause long-term adverse effects in the aquatic environment.

Safety Phrases:      S24 Avoid contact with skin.  
S36 Wear suitable protective clothing.  
S60 This material and/its container must be disposed of as hazardous waste.  
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

## 16. OTHER INFORMATION

HMIS rating: Health: 1  
Flammability: 1  
Reactivity: 0  
PPI: X

Legend : 0(HMIS) Minimal hazard  
1(HMIS) Slight hazard  
2(HMIS) Moderate hazard  
3(HMIS) Serious hazard  
4(HMIS) Severe hazard  
X(HMIS) Personal protective rating to be supplied by user  
depending on the use conditions

Use : Antidegradant.

**Special notes:** TMQ, whilst having been found inactive in the Ames test<sup>1</sup>, was reported as tumourogenic (dose related induction of lymphomata and cholangiofibrosis of the bile duct) in rodents<sup>2</sup>. Since these findings may represent a premalignant change, BRMA recommends that exposure to TMQ be reduced as far as possible. TMQ was fed to dogs at up to 0.15% for one year with no increased incidence of tumours. Mice given 10 mg/day on skin had no increase in tumour incidence after 2 years<sup>3</sup>.

### References:

- 1 . Crebelli, R. et al, In vitro mutagenic activity of raw materials used in the rubber industry Antidegradants. 46th National Congress of Industrial Medicine and Hygiene, 1983: 6 (Italian)
- 2 . Hodge, H. C. et al, Tests on mice for evaluating carcinogenicity. Tox. Appl. Pharmacol., 9 1966: 583 - 596.
3. Uniroyal Material Safety Data Sheet for Naugard Q, 1996.

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