

# MATERIAL SAFETY DATA SHEET

## Section 1. PRODUCT IDENTIFICATION

**Product Name:** Polyflo™ 195 Fuel Additive

## Section 2. COMPOSITION

<u>Ingredient</u>	<u>CAS No.</u>	<u>Wt%</u>	<u>EU Symbol</u>	<u>EU Risk Phrase</u>
N,N-dimethylcyclohexylamine	98-94-2	100	T, C	R-10,20/22,24,35, 41

## Section 3. HAZARD IDENTIFICATION

**Emergency Overview :** This clear pale yellow liquid may be corrosive to the skin and eyes. The product is considered toxic if absorbed through the skin. The product is considered harmful via ingestion and inhalation. Product is combustible and toxic vapors may be given off in a fire.

### **Potential Health Effects :**

**Primary Routes of Exposure :** Contact with skin, eyes and product vapor inhalation. Product ingestion is unlikely to occur if proper safety/hygiene procedures are followed.

**Skin Contact :** The product may be absorbed through the skin in toxic amounts. Product is corrosive to the skin and will cause burns.

**Eye Contact :** Product is corrosive to the eye.

**Ingestion :** The product is harmful if ingested.

**Inhalation :** The product is harmful via inhalation. Inhalation of high vapor concentrations may cause irritation of the respiratory tract.

**Target Organ :** The product is corrosive to any tissue; this includes the skin, eyes and mucous membranes.

**Carcinogenicity Classifications:** Neither the product nor the component(s) are classified.

## Section 4. FIRST AID INFORMATION

**Skin Contact : REMOVE FROM SKIN EMERGENCY.** Apply a generous amount of waterless and hand cleaner (such as GOOP®, GoJo®, or similar product) to the affected area. Rub briskly on the skin, on and around the affected area. Remove the mixture of cleaner-product with paper towels or clean dry rags. Repeat the entire procedure, then wash the skin with a mild soap, rinsing with warm water. If irritation develops, obtain medical attention.

**Eye contact :** Flush with water for at least 15 minutes. If irritation occurs, obtain medical attention.

**Ingestion :** Do not induce vomiting. Obtain immediate medical attention.

**Inhalation :** Remove affected area to fresh air. If respiratory problems develop, obtain medical attention.

**Notes to physician :** An activated charcoal slurry taken within 30 minutes of product ingestion may reduce the toxicity of the chemical. A 5:1 weight ratio of charcoal to material ingested is the recommended dosage. Activated charcoal should not be considered as an antidote; normal symptomatic treatment is recommended with or without the administration of activated charcoal.

## Section 5. FIRE FIGHTING MEASURES

**Flash Point :** Above 38°C PMCC

**Extinguishing Media :** Use water fog, foam dry chemical or CO<sub>2</sub>.

**Fire and Explosion Hazards :** Toxic vapors may be given off in a fire (See section 10). Wear protective clothing and self-contained breathing apparatus.

## Section 6. ACCIDENTAL RELEASE MEASURES

**Large Spill :** Standard hydrocarbon spill procedures apply to this product. Remove all sources of ignition. Isolate the affected areas. Confine entry into the affected area to those persons properly protected. Stop leak at the source. Cut off and redirect surface runoff by trenching or diking. Spills should be contained through the use of commercial oil adsorbent, but other materials such earth, sand or sawdust may be more expedient to limit the extent of the spill. Prevent the release of this product into the waterway or sewer. To prevent further losses, reposition, plug or place the leaking container into an oversized recovery drum/container.

**Small Spill :** Wear protective equipment. Absorb spilled product using a commercial oil absorbent soaking up as much product as possible. Product should be disposed of in accordance with all applicable government regulations.

**Section 7. HANDLING AND STORAGE**

Store in tightly closed, properly labeled containers in a cool, well ventilated area away from all ignition sources. Store out of direct sunlight. Wear appropriate personal protective equipment. Avoid inhalation of product vapors or mist. Never use a welding or cutting torch on or near a drum (even empty) because vapors from the material (even residue) can ignite explosively. Follow all MSDS/label precautions even after container is emptied because it may retain product residue.

**Section 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Respiratory Protection:** Where natural ventilation is inadequate, use mechanical ventilation, other engineering controls, or an organic adsorption respirator (in USA – NIOSH/ MSHA approved) to prevent inhalation of product vapor.

**Skin protection :** Gloves, footwear, coveralls and/or apron as necessary to prevent repeated or prolonged skin contact. Any clothing which becomes wet with product should be removed immediately and laundered before reuse.

**Eye Protection :** Chemical goggles or face shield as necessary to prevent eye contact.

**Exposure Limits**

<u>Ingredient</u>	<u>MAK</u>	<u>VME</u>	<u>ACGIH TLV-TWA(1997)</u>
N,N-dimethylcyclohexylamine	N/E	N/E	N/E

**Section 9. PHYSICAL AND CHEMICAL PROPERTIES**

These data do not represent technical or sales specifications.

Appearance	:	Clear Pale yellow Liquid
Sp. Gr.	:	0.83 – 0.88 @ 60°F
Odor	:	Typical amine odor
Apparent Bulk Density	:	NA
pH	:	10.8 in 0.1 wt.% water solution
Solubility in water	:	Negligible
% Volatile	:	NA
Boiling Point	:	320 °F (160 °C)
Pour Point	:	Below -18 °C
Freezing Point	:	NA
Viscosity	:	0.5 – 7.00 @ 100 °F
Melting Point	:	NA
Vapor Density	:	4.4 (Air = 1)
Vapor Pressure	:	10 mmHg @ 38 °F

**Section 10. STABILITY**

**Stability :** Stable.

**Condition to avoid :** Thermal decomposition. Exposure to heat, light sparks and open flame.

**Hazardous Decomposition Products :** The product itself does not readily decompose unless subject to extreme temperature or chemical conditions. CO, CO<sub>2</sub>, NO<sub>x</sub> may be generated in the event of incomplete burning. At elevated temperature cyanic acid, isocyanate, cyanogens, nitrosamines, amides and carbamates may be formed.

**Hazardous Polymerization :** Will not occur.

**Incompatible Materials :** Strong oxidizing or reducing agents. The product, in its concentrated form, may corrode aluminum, copper, tin, zinc, and alloys containing these metals.

**Section 11. TOXICOLOGICAL INFORMATION**

**Acute Oral Toxicity :** N,N-dimethylcyclohexylamine : Oral LD50 = 280 g/kg (rat)

**Acute Dermal Toxicity :** N,N-dimethylcyclohexylamine : Dermal LD50 = 210 g/kg (rabbit)

**Acute Inhalation Toxicity :** N,N-dimethylcyclohexylamine : Inhalation LC50 = 9 mg/1/4 (rat)

**Irritation :** Eye : N,N-dimethylcyclohexylamine is severe irritant to the eyes (rabbit). Corrosive.

Skin : N,N-dimethylcyclohexylamine is severe irritant to the skin (rabbit). Corrosive.

**Additional Toxicological Information :** No other data shown.

---

**Section 12. ECOLOGICAL INFORMATION**

No data is available for the product.

---

**Section 13. DISPOSAL INFORMATION**

Waste material, including liquids, contaminated absorbent and material from spill clean-up procedures, must be handled in accordance with all applicable government regulations. It is up-to the user of this product to determine the hazards associated with any waste material generated. Recommended disposal methods include incineration for contaminated liquids and solids.

---

**Section 14. TRANSPORTATION INFORMATION**

**ADR / RID :** N,N-dimethylcyclohexylamine, Class 8, Item 54b, Marginal 2801, Danger Code 83.

**International Maritime Organization (IMO)** N,N`-dimethylcyclohexylamine), Class 8, UN 2264, II (3.3) Page IMDG : 8164-1. EmS No. 8-04. MFAG Table No. 320.

---

**Section 15. REGULATORY INFORMATION**

Council of European Communities Directive on Classification, Packing and Labeling of Dangerous Substances/Preparation (67/548/EEC & 88/379/EEC) :

R10 Flammable

R20/22 Harmful by inhalation and if swallowed.

R24 Toxic in contact with skin.

R35 Causes severe burns.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of waterless handcleaner.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

T : Toxic.

Contains : N,N`Dimethylcyclohexylamine

**European Inventory of existing Commercial Chemical Substances :**

All components of this preparation are included in EINECS/ELINCS.

---

**Section 16. OTHER INFORMATION**

For additional information concerning this product, contact the following:

**PRODUCT EMERGENCIES**

**Dorf Ketal Chemicals (I) Pvt. Ltd.**

#1 DORF KETAL TOWERS.

D'Monte Street, Marve Road.

Malad (W). Bombay 64.

Tel: +91-22-8813654 / +91-22-8828374.

Fax: +91-22-28882366

**Dorf Ketal LLC**

3727 Greenbriar

Suite 114,

Stafford, TX 77477

Tel : 281 491 3700

Fax : 281 491 3700

The data and recommendations presented in this data sheet concerning the use of our product and the materials contain there in are believed to be accurate and are based on information which is considered reliable as of the date hereof. However, the customer should determine the suitability of such material for his purpose before adopting them on a commercial scale. Since the use our products by others is beyond our control, no guarantee, express or implied, is made and no responsibility assumed for the use of this material or the results to be obtained there from. Information on this form is furnished for the purpose of compliance with Government Health and Safety Regulations and shall not be used for any other purposes. Moreover, the recommendations contained in this data sheet are not to be constructed as a license to operate under, or a recommendation to infringe, any existing patents, nor should they be confused with state, municipal or insurance requirements, or with national safety codes.