



# Safety Data Sheet

Dow Chemical Company Ltd

Product Name: BETABRADE(TM) F1

Revision Date: 2011/04/28

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Dow Chemical Company Ltd encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## Section 1. Identification of the substance/preparation and of the company/undertaking

### 1.1 Product identifiers

**Product Name**

BETABRADE™ F1

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses**

A glass cleaner -- For use in automotive applications.

### 1.3 Details of the supplier of the safety data sheet

**COMPANY IDENTIFICATION**

Dow Chemical Company Ltd  
Diamond House, Lotus Park  
Kingsbury Crescent  
TW18 3AG Staines, Middlesex  
United Kingdom

Customer Information Number:

0203 139 4000

[SDSQuestion@dow.com](mailto:SDSQuestion@dow.com)

### 1.4 EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:**

0031 115 694 982

**Local Emergency Contact:**

00 31 115 69 4982

## Section 2. Hazards Identification

### 2.1 Classification of the substance or mixture

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

This product is not classified as dangerous according to EC criteria.

### 2.2 Label elements

**Labelling according to EC Directives**

This product is not classified as dangerous according to EC criteria.

|| Safety data sheet available for professional users on request.

### 2.3 Other Hazards

No information available.

## Section 3. Composition/information on ingredients

### 3.2 Mixture

This product is a mixture.

CAS-No. / EC-No. / REACH No. Index	Amount	Component	Classification: REGULATION (EC) No 1272/2008
CAS-No. 1344-28-1 EC-No. 215-691-6	— > 45.0 - < 55.0 %	Aluminium oxide##	Not classified
CAS-No. 7732-18-5 EC-No. 231-791-2	— > 35.0 - < 45.0 %	Water##	Not classified
CAS-No. 8042-47-5 EC-No. 232-455-8	— > 5.0 - < 15.0 %	White mineral oil (petroleum)	Not classified

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## Voluntarily disclosed component(s).

For the full text of the H-Statements mentioned in this Section, see Section 16.

See Section 16 for full text of R-phrases.

## Section 4. First-aid measures

### 4.1 Description of first aid measures

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

**Skin Contact:** Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

**Eye Contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Suitable emergency eye wash facility should be available in work area.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

#### **4.2 Most important symptoms and effects, both acute and delayed**

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

#### **4.3 Indication of immediate medical attention and special treatment needed**

Maintain adequate ventilation and oxygenation of the patient. If excessive inhalation of mineral oil mist is suspected, observe for lung injury (lipoid pneumonia). No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## **Section 5. Fire Fighting Measures**

### **5.1 Extinguishing Media**

This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

### **5.2 Special hazards arising from the substance or mixture**

**Hazardous Combustion Products:** Not applicable

**Unusual Fire and Explosion Hazards:** None known.

### **5.3 Advice for firefighters**

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Do not use direct water stream. May spread fire.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

## **Section 6. Accidental Release Measures**

**6.1 Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. No smoking in area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**6.2 Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**6.3 Methods and materials for containment and cleaning up:** Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

## Section 7. Handling and Storage

### 7.1 Precautions for safe handling

#### Handling

**General Handling:** Keep away from heat, sparks and flame. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

Keep container tightly closed and in a well-ventilated place.

**Shelf life: Use within** 18 Months      **Storage temperature:** > 5 - < 30 °C

### 7.3 Specific end uses

See the technical data sheet on this product for further information.

## Section 8. Exposure Controls / Personal Protection

### 8.1 Control parameters

#### Exposure Limits

Component	List	Type	Value
White mineral oil (petroleum)	ACGIH	TWA Inhalable fraction.	5 mg/m <sup>3</sup>

Although some of the fillers used in this product may have exposure guidelines, no exposure would be expected under normal handling conditions because of the physical state of the material.

### 8.2 Exposure controls

#### Personal Protection

**Eye/Face Protection:** Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent.

**Skin Protection:** Wear clean, body-covering clothing.

**Hand protection:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Avoid gloves made of: Polyvinyl alcohol ("PVA"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Respiratory Protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. For emergency conditions, use an approved

positive-pressure self-contained breathing apparatus. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

**Ingestion:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

### Engineering Controls

**Ventilation:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

## Section 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical State	Liquid.
Color	White
Odor	Orange
Odor Threshold	No test data available
pH	Not applicable
Melting Point	Not applicable
Freezing Point	No test data available
Boiling Point (760 mmHg)	Not applicable.
Flash Point - Closed Cup	79 °C <i>Vendor</i>
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not applicable to liquids
Flammable Limits In Air	<b>Lower:</b> Not applicable <b>Upper:</b> Not applicable
Vapor Pressure	Not applicable
Vapor Density (air = 1)	No test data available
Specific Gravity (H <sub>2</sub> O = 1)	1.08 <i>Vendor</i>
Solubility in water (by weight)	Partially soluble
Partition coefficient, n-octanol/water (log Pow)	No test data available
Autoignition Temperature	No test data available
Decomposition Temperature	No test data available
Dynamic Viscosity	No test data available
Kinematic Viscosity	No test data available
Explosive properties	no data available
Oxidizing properties	no data available

### 9.2 Other information

## Section 10. Stability and Reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

Polymerization will not occur.

**10.4 Conditions to Avoid:** None known.

**10.5 Incompatible Materials:** Strong oxidizers. Strong acids.

**10.6 Hazardous decomposition products**

Does not normally decompose.

**Section 11. Toxicological Information****11.1 Information on toxicological effects****Acute Toxicity****Ingestion**

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Single dose oral LD50 has not been determined.

**Aspiration hazard**

Based on available information, aspiration hazard could not be determined.

**Dermal**

Prolonged skin contact is unlikely to result in absorption of harmful amounts. The dermal LD50 has not been determined.

**Inhalation**

At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous. Mist may cause irritation of upper respiratory tract (nose and throat). Excessive exposure to mineral oil mist may cause lung injury (lipoid pneumonia). This material contains mineral and/or inorganic fillers. There is essentially no potential for inhalation exposure to these fillers incidental to industrial handling due to the physical state.

The LC50 has not been determined.

**Eye damage/eye irritation**

May cause slight eye irritation. May cause slight temporary corneal injury.

**Skin corrosion/irritation**

Prolonged contact may cause skin irritation with local redness.

**Sensitization****Skin**

One type of mineral oil (CAS 8042-47-5) has caused skin sensitization in guinea pigs.

**Respiratory**

No relevant information found.

**Repeated Dose Toxicity**

Contains component(s) which have been reported to cause effects on the following organs in animals: Kidney. Liver. Spleen. Excessive repeated exposure to mineral oil mist may produce lung injury.

**Chronic Toxicity and Carcinogenicity**

IARC has classified untreated and mildly-treated mineral oils as Group 1 (sufficient evidence for carcinogenicity in humans) and highly refined oils as Group 3 (not classifiable as to its carcinogenicity).

**Developmental Toxicity**

No relevant information found.

**Reproductive Toxicity**

No relevant information found.

**Genetic Toxicology**

Contains a component(s) which were negative in in vitro genetic toxicity studies.

**Component Toxicology - White mineral oil (petroleum)**

<b>Skin Absorption</b>	Estimated. LD50, Rabbit > 2,000 mg/kg
<b>Component Toxicology - White mineral oil (petroleum)</b>	
<b>Inhalation</b>	Estimated. LC50, 4 h, Rat > 2.5 mg/l
<b>Component Toxicology - Aluminium oxide</b>	
<b>Ingestion</b>	LD50, Rat > 5,000 mg/kg
<b>Component Toxicology - White mineral oil (petroleum)</b>	
<b>Ingestion</b>	Estimated. LD50, Rat > 5,000 mg/kg

**Section 12. Ecological Information****12.1 Toxicity**

Data for Component: Aluminium oxide

|| Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

**Fish Acute & Prolonged Toxicity**

|| EC50, fish, 96 h: > 100 mg/l

**Aquatic Invertebrate Acute Toxicity**

|| EC50, water flea Daphnia magna, 48 h, immobilization: > 100 mg/l

**Aquatic Plant Toxicity**

|| ErC50, green alga Pseudokirchneriella subcapitata (formerly known as Selenastrum capricornutum), Growth rate inhibition, 72 h: > 100 mg/l

Data for Component: White mineral oil (petroleum)

|| Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

**Fish Acute & Prolonged Toxicity**

|| LC50, bluegill (Lepomis macrochirus), static, 96 h: > 10,000 mg/l

**12.2 Persistence and Degradability**Data for Component: Aluminium oxide

|| Biodegradation is not applicable.

Data for Component: White mineral oil (petroleum)

|| Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions. Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability).

**OECD Biodegradation Tests:**

Biodegradation	Exposure Time	Method	10 Day Window
0 - 24 %	28 d	OECD 301B Test	fail

**12.3 Bioaccumulative potential**Data for Component: Aluminium oxide

|| **Bioaccumulation:** Partitioning from water to n-octanol is not applicable.

Data for Component: White mineral oil (petroleum)

|| **Partition coefficient, n-octanol/water (log Pow):** 5.18 Measured  
|| **Bioconcentration Factor (BCF):** 1,900; fish; Estimated.

**12.4 Mobility in soil**Data for Component: Aluminium oxide

|| **Mobility in soil:** No relevant data found.

Data for Component: White mineral oil (petroleum)

|| **Partition coefficient, soil organic carbon/water (Koc):** 510 Estimated.  
|| **Henry's Law Constant (H):** 3.21E+00 atm\*m3/mole; 25 °C Estimated.

**12.5 Results of PBT and vPvB assessment**Data for Component: Aluminium oxide

|| This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Data for Component: White mineral oil (petroleum)

|| This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

**12.6 Other adverse effects**Data for Component: Aluminium oxide

|| This substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Data for Component: **White mineral oil (petroleum)**

No data available.

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water.

**Treatment and disposal methods of used packaging:** Empty containers should be recycled or otherwise disposed of by an approved waste management facility. **CONTAMINATED PACKAGING:** Any disposal of contaminated packaging and washings must be in accordance with State, Territory and/or Local government regulations. After container has been cleaned and labelling has been removed, empty containers can be sent for recycling or disposal. If the container is to be reconditioned, the reconditioning company should be made aware of the nature of the original contents.

## Section 14. Transport Information

### ROAD & RAIL

NOT REGULATED

### OCEAN

NOT REGULATED

### AIR

NOT REGULATED

### INLAND WATERWAYS

**Proper Shipping Name:** SUBSTANCES with a flashpoint above 61 °C but not more than 100 °C, N.O.S.

**Technical Name:** WHITE MINERAL OIL (PETROLEUM), LIGHT

**Hazard Class:** 9 **ID Number:** ID9003

## Section 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### European Inventory of Existing Commercial Chemical Substances (EINECS)

The components of this product are on the EINECS inventory or are exempt from inventory requirements.

#### EU. Regulation 648/2004, Annex VII, Content Labeling for Detergents

For professional use only.

Component	CAS #	Amount
Aliphatic hydrocarbons		5.0 - < 15.0 %
Anionic surfactant		< 5.0 %

### 15.2 Chemical Safety Assessment

Not applicable.



**Section 16. Other Information****Hazard statement in the composition section****Risk-phrases in the Composition section**

R65 Harmful: may cause lung damage if swallowed.

**Revision**

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Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

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