

# SAFETY DATA SHEET

## FRIGILENE REDUCER

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

**PRODUCT NAME** FRIGILENE REDUCER  
**PRODUCT NO.** 65611, 165598  
**APPLICATION** Solvent  
**SUPPLIER** MacDermid plc  
 Palmer Street  
 Bordesley  
 Birmingham  
 B9 4EU  
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**CONTACT PERSON** sdsuk@macdermid.com  
**EMERGENCY TELEPHONE** 24 Hour Emergency Incident Number +44 (0)208 762 8322

### 2 HAZARDS IDENTIFICATION

Flammable. Irritating to skin. Harmful by inhalation and in contact with skin.

**CLASSIFICATION** Xn;R20/21. Xi;R38. R10.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
XYLENE	215-535-7	1330-20-7	60-100%	R10 Xn;R20/21 Xi;R38
BUTYL ACETATE -norm	204-658-1	123-86-4	10-30%	R10 R66 R67

The Full Text for all R-Phrases are Displayed in Section 16

### 4 FIRST-AID MEASURES

#### GENERAL INFORMATION

CAUTION! First aid personnel must be aware of own risk during rescue! NOTE! Keep affected person away from heat, sparks and flames! NOTE! Effects may be delayed. Keep affected person under observation.

#### INHALATION

Move the exposed person to fresh air at once. Rinse nose and mouth with water. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

#### INGESTION

Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Rinse nose, mouth and throat with water. DO NOT induce vomiting if swallowed chemical is dissolved in petroleum-based material. Danger of aspiration and development of chemical pneumonia. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately!

#### SKIN CONTACT

Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

#### EYE CONTACT

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

### 5 FIRE-FIGHTING MEASURES

#### EXTINGUISHING MEDIA

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Do not use water jet as an extinguisher, as this will spread the fire.

# FRIGILENE REDUCER

## SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapours. Beware, risk of formation of toxic and corrosive gases. Be aware of danger of explosion. Use water to keep fire exposed containers cool and disperse vapours. Cool containers exposed to flames with water until well after the fire is out. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control. If risk of water pollution occurs, notify appropriate authorities.

## UNUSUAL FIRE & EXPLOSION HAZARDS

FLAMMABLE. May explode in a fire. May travel considerable distance to source of ignition and flash back. Vapour explosion and poison hazard indoors, outdoors and in sewers.

## SPECIFIC HAZARDS

The product is flammable, and heating may generate vapours which may form explosive vapour/air mixtures.

## PROTECTIVE MEASURES IN FIRE

Use air-supplied respirator during fire fighting. Wear full protective clothing.

## 6 ACCIDENTAL RELEASE MEASURES

## PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Do not smoke, use naked flames or other sources of ignition. Take precautionary measures against static discharges.

## ENVIRONMENTAL PRECAUTIONS

Do not discharge into drains, water courses or onto the ground. Avoid release to the environment.

## SPILL CLEAN UP METHODS

Wear necessary protective equipment. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb spillage with non-combustible, absorbent material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Runoff or release to sewer, waterway or ground is forbidden. Inform Authorities if large amounts are involved.

## 7 HANDLING AND STORAGE

## USAGE PRECAUTIONS

Avoid inhalation of vapours and contact with skin and eyes. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Static electricity and formation of sparks must be prevented. Use explosion proof electric equipment. Contaminated rags and cloths must be put in fireproof containers for disposal. Do not use in confined spaces without adequate ventilation and/or respirator.

## STORAGE PRECAUTIONS

Flammable/combustible - Keep away from oxidisers, heat and flames. Keep away from heat, sparks and open flame. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Take precautionary measures against static discharges.

## STORAGE CLASS

Flammable liquid storage.

**MIN. STORAGE TEMP (°C)** 5

**MAX. STORAGE TEMP (°C)** 40

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	LT - ppm	LT - mg/m3	ST - ppm	ST - mg/m3
BUTYL ACETATE -norm	WEL	150 ppm	724 mg/m3	200 ppm	966 mg/m3
XYLENE	WEL	50 ppm(Sk)	220 mg/m3(Sk)	100 ppm(Sk)	441 mg/m3(Sk)

## PROTECTIVE EQUIPMENT



# FRIGILENE REDUCER



## ENGINEERING MEASURES

Provide adequate ventilation. Observe Workplace Exposure Limits and minimise the risk of inhalation of vapours. Explosion-proof general and local exhaust ventilation.

## RESPIRATORY EQUIPMENT

If ventilation is insufficient, suitable respiratory protection must be provided. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Seek advice from supervisor on the companies' respiratory protection standards.

## HAND PROTECTION

Protective gloves must be used if there is a risk of direct contact or splash. Use protective gloves made of: Neoprene. or Nitrile. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

## EYE PROTECTION

Wear splash-proof eye goggles to prevent any possibility of eye contact. Contact lenses should not be worn when working with this chemical!

## OTHER PROTECTION

Provide eyewash station and safety shower. Wear suitable protective clothing as protection against splashing or contamination.

## HYGIENE MEASURES

Wash promptly with soap & water if skin becomes contaminated. Promptly remove non-impervious clothing that becomes wet. Contaminated clothing to be placed in closed container until disposal or decontamination. Warn cleaning personnel of chemical's hazardous properties. Wash at the end of each work shift and before eating, smoking and using the toilet. **DO NOT SMOKE IN WORK AREA!**

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## 9 PHYSICAL AND CHEMICAL PROPERTIES

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<b>APPEARANCE</b>	Clear liquid		
<b>COLOUR</b>	Colourless		
<b>ODOUR</b>	Aromatic hydrocarbons / Solvent.		
<b>SOLUBILITY</b>	Immiscible with water		
<b>RELATIVE DENSITY</b>	0.88 - 0.90	<b>FLASH POINT (°C)</b>	22 CC (Closed cup).

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## 10 STABILITY AND REACTIVITY

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### STABILITY

Stable under normal temperature conditions and recommended use. Avoid: Heat, sparks, flames.

### CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition.

### MATERIALS TO AVOID

Flammable/combustible material. Strong acids. Strong oxidising substances. Strong reducing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

None under normal conditions. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

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## 11 TOXICOLOGICAL INFORMATION

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### GENERAL INFORMATION

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

### INHALATION

Harmful by inhalation. Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication. May cause damage to the liver and kidneys.

### INGESTION

Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. Central nervous system depression. May cause nausea, headache, dizziness and intoxication. May cause liver and/or renal damage. Gastrointestinal symptoms, including upset stomach. Nausea, vomiting. Diarrhoea.

# FRIGILENE REDUCER

## SKIN CONTACT

Harmful in contact with skin. Irritating to skin. Product has a defatting effect on skin. Repeated exposure may cause skin dryness or cracking.

## EYE CONTACT

Irritating to eyes. Repeated exposure may cause chronic eye irritation.

## MEDICAL SYMPTOMS

In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

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## 12 ECOLOGICAL INFORMATION

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### ECOTOXICITY

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

### WATER HAZARD CLASSIFICATION

WGK 2

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## 13 DISPOSAL CONSIDERATIONS

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### GENERAL INFORMATION

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. When handling waste, consideration should be made to the safety precautions applying to handling of the product. Do not puncture or incinerate even when empty.

### DISPOSAL METHODS

Environmental manager must be informed of all major spillages. Dispose of waste and residues in accordance with local authority requirements. Do not allow runoff to sewer, waterway or ground.

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## 14 TRANSPORT INFORMATION

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<b>UK ROAD CLASS</b>	3		
<b>PROPER SHIPPING NAME</b>	PAINT RELATED MATERIAL		
<b>UN NO. ROAD</b>	UN1263	<b>UK ROAD PACK GR.</b>	II
<b>ADR CLASS NO.</b>	3	<b>ADR CLASS</b>	Class 3: Flammable liquids.
<b>ADR PACK GROUP</b>	II	<b>HAZARD NO. (ADR)</b>	33 Highly flammable liquid (flash-point below 23°C).
<b>UN NO. SEA</b>	UN1263	<b>IMDG CLASS</b>	3
<b>IMDG PACK GR.</b>	II	<b>EMS</b>	F-E, S-E
<b>MARINE POLLUTANT</b>	No.	<b>UN NO. AIR</b>	UN1263
<b>AIR CLASS</b>	3	<b>AIR PACK GR.</b>	II

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## 15 REGULATORY INFORMATION

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### LABELLING



Harmful

### CONTAINS

XYLENE

# FRIGILENE REDUCER

## RISK PHRASES

R10	Flammable.
R38	Irritating to skin.
R20/21	Harmful by inhalation and in contact with skin.

## SAFETY PHRASES

S24	Avoid contact with skin.
S51	Use only in well-ventilated areas.
S36/37	Wear suitable protective clothing and gloves.
S60	This material and its container must be disposed of as hazardous waste.

## EU DIRECTIVES

Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC. Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

## APPROVED CODE OF PRACTICE

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

## GUIDANCE NOTES

Workplace Exposure Limits EH40.

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## 16 OTHER INFORMATION

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**REVISION DATE** 12/12/2005

### SAFETY DATA SHEET STATUS

Approved.

**DATE** 26/06/1997

**SIGNATURE** BH

### RISK PHRASES IN FULL

R10	Flammable.
R20/21	Harmful by inhalation and in contact with skin.
R38	Irritating to skin.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

## DISCLAIMER

This information relates only to the specific material as supplied and may not be valid for such material if used in combination with any other material(s) or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. The data should not be construed as guaranteeing specific properties of the product described or its suitability for a particular application, nor does it make any warranty, either express or implied of merchantability for the product itself. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.