



# SAFETY DATA SHEET

DOW MIDEAST SYSTEMS S.A.E.

**Product name:** ACUSOL™ 882 Polymer

**Issue Date:** 09/27/2018

**Print Date:** 03/08/2019

DOW MIDEAST SYSTEMS S.A.E. 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.

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## 1. PRODUCT AND COMPANY IDENTIFICATION

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**Product name:** ACUSOL™ 882 Polymer

**Recommended use of the chemical and restrictions on use**

**Identified uses:** Rheology modifier

**COMPANY IDENTIFICATION**

DOW MIDEAST SYSTEMS S.A.E.  
ZONE B4, LOT NO. 20 INDUSTRIAL  
10TH OF RAMADAN CITY  
EGYPT

**Customer Information Number:**

(31) 115 67 2626  
SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** 20 10 005 30 73

**Local Emergency Contact:** 00 20 10 005 30 73

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## 2. HAZARDS IDENTIFICATION

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**Classification of the substance or mixture**

Eye irritation - Category 2 - H319

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

**Label elements**

**Hazard pictograms**



**Signal word: WARNING**

**Hazard statements**

H319 Causes serious eye irritation.

**Precautionary statements**

P264 Wash skin thoroughly after handling.

P280 Wear eye protection/ face protection.

P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

**Other hazards**

No data available

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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**Chemical nature:** Polyurethane resin

This product is a mixture.

CASRN / EC-No. / Index-No.	Concentration	Component	Classification
CASRN 112-34-5 EC-No. 203-961-6 Index-No. 603-096-00-8	>= 20.0 - < 30.0 %	Diethylene glycol monobutyl ether	Eye Irrit. - 2 - H319

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

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### 4. FIRST AID MEASURES

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**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 effects occur, consult a physician.

**Skin contact:** Wash off with plenty of water.

**Eye contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** No emergency medical treatment necessary.

**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), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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## 5. FIREFIGHTING MEASURES

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**Suitable extinguishing media:** Water spray Dry powder Foam Carbon dioxide (CO2)

**Unsuitable extinguishing media:** No data available

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

**Hazardous combustion products:** During a fire, irritating and highly toxic gases and/or fumes may be generated during combustion or decomposition.

**Unusual Fire and Explosion Hazards:** Do not allow run-off from fire fighting to enter drains or water courses. Exposure to decomposition products may be a hazard to health.

**Advice for firefighters**

**Fire Fighting Procedures:** Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Keep people away from and upwind of spill/leak. Ventilate the area. Refer to protective measures listed in sections 7 and 8.

**Environmental precautions:** Try to prevent the material from entering drains or water courses. Do not contaminate surface water.

**Methods and materials for containment and cleaning up:** Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Avoid contact with skin and eyes. For personal protection see section 8.

**Conditions for safe storage:** Keep container tightly closed. Store in a cool, dry, well ventilated place.

**Storage stability:** Other data: No decomposition if stored and applied as directed.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value/Notation
Diethylene glycol monobutyl ether	ACGIH	TWA Inhalable fraction and vapor	10 ppm
	2006/15/EC	TWA	67.5 mg/m <sup>3</sup> 10 ppm
	2006/15/EC	STEL	101.2 mg/m <sup>3</sup> 15 ppm

### Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

### Individual protection measures

**Eye/face protection:** Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

#### Skin protection

**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: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). 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 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of

material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. 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.

**Other protection:** Wear clean, body-covering clothing.

**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. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

Use the following CE approved air-purifying respirator: Organic vapor cartridge, type A (boiling point >65 °C, meeting standard EN 14387).

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

Physical state	liquid
Color	Colorless to white Hazy
Odor	Sweet odor
Odor Threshold	No data available
pH	6.0 - 8.0
Melting point/range	5.00 °C
Freezing point	No data available
Boiling point (760 mmHg)	100.00 °C Water
Flash point	>100 °C
Evaporation Rate (Butyl Acetate = 1)	<1.00 Water
Flammability (solid, gas)	Not Applicable
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor Pressure	No data available
Relative Vapor Density (air = 1)	<1.0000 Water
Relative Density (water = 1)	1.0000 - 1.2000
Water solubility	Dilutable

<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Kinematic Viscosity</b>	No data available
<b>Explosive properties</b>	No data available
<b>Oxidizing properties</b>	No data available
<b>Molecular weight</b>	No data available
<b>Percent volatility</b>	61 - 63 %

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** No dangerous reaction known under conditions of normal use.

**Chemical stability:** No data available

**Possibility of hazardous reactions:** Polymerization will not occur.

**Conditions to avoid:** No data available

**Incompatible materials:** Incompatible with strong acids and oxidizing agents.

**Hazardous decomposition products:** Stable under recommended storage conditions.

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data is available.*

### Acute toxicity

#### Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

For similar material(s):

LD50. Rat. male. > 5,000 mg/kg

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

For similar material(s):

LD50. Rabbit. male. > 5,000 mg/kg

#### Acute inhalation toxicity

Brief exposure (minutes) is not likely to cause adverse effects.

The LC50 has not been determined.

**Skin corrosion/irritation**

Brief contact is essentially nonirritating to skin.

**Serious eye damage/eye irritation**

May cause severe eye irritation.

May cause slight corneal injury.

**Sensitization**

For similar material(s):

Did not cause allergic skin reactions when tested in guinea pigs.

Did not cause allergic skin reactions when tested in humans.

For respiratory sensitization:

No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Available data are inadequate to determine single exposure specific target organ toxicity.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Contains component(s) which have been reported to cause effects on the following organs in animals:

Blood.

Kidney.

Liver.

**Carcinogenicity**

No relevant data found.

**Teratogenicity**

For the component(s) tested: Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

**Reproductive toxicity**

Contains component(s) which did not interfere with reproduction in animal studies. However, body weights of newborn animals were decreased.

**Mutagenicity**

In vitro mutagenicity studies were negative.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**COMPONENTS INFLUENCING TOXICOLOGY:**

**Diethylene glycol monobutyl ether**

**Acute inhalation toxicity**

The LC50 has not been determined.

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information appears in this section when such data is available.*

### Toxicity

#### Acute toxicity to fish

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

For similar material(s):

LC50. Rainbow trout (*Oncorhynchus mykiss*). 96 Hour. 741 mg/l. OECD Test Guideline 203

#### Acute toxicity to aquatic invertebrates

For similar material(s):

EC50. *Daphnia magna*. 48 Hour. 897 mg/l. OECD Test Guideline 202

For similar material(s):

NOEC. *Daphnia magna*. 48 Hour. 563 mg/l. OECD Test Guideline 202

#### Acute toxicity to algae/aquatic plants

For similar material(s):

EbC50. green alga *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum*). Static. 72 Hour. Biomass. 229 mg/l. OECD Test Guideline 201

For similar material(s):

NOEC. green alga *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum*). Static. 72 Hour. 125 mg/l. OECD Test Guideline 201

### Persistence and degradability

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

### Bioaccumulative potential

#### Diethylene glycol monobutyl ether

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient (n-octanol/water(log Pow)):** 1 Measured

### Mobility in soil

#### Diethylene glycol monobutyl ether

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient (Koc):** 2 Estimated.

### Results of PBT and vPvB assessment

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

**Other adverse effects**

No relevant data found.

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**13. DISPOSAL CONSIDERATIONS**

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**Disposal methods:**

Dispose of as special waste in compliance with local and national regulations. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container.

**Contaminated packaging:**

Do not re-use empty containers.

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**14. TRANSPORT INFORMATION**

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**Classification for ROAD and Rail transport:**

Not regulated for transport

**Classification for SEA transport (IMO-IMDG):**

Not regulated for transport

**Transport in bulk  
according to Annex I or II  
of MARPOL 73/78 and the  
IBC or IGC Code**

Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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**15. REGULATORY INFORMATION**

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**Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.**

Listed in Regulation: Not applicable

Classification and labeling have been performed according to Regulation (EC) No 1272/2008.

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## 16. OTHER INFORMATION

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### Full text of H-Statements referred to under sections 2 and 3.

H319 Causes serious eye irritation.

### Revision

Identification Number: 10085728 / A315 / Issue Date: 09/27/2018 / Version: 5.0

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

### Legend

2006/15/EC	Europe. Indicative occupational exposure limit values
ACGIH	USA. ACGIH Threshold Limit Values (TLV)
STEL	Short term exposure limit
TWA	8-hour, time-weighted average
Eye Irrit.	Eye irritation

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United

Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

**Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

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