

SAFETY DATA SHEET

DEQUEST® 2006

Section 1. Identification

Product identifier : DEQUEST® 2006
Product code : 421046, 18298, 19092, 42250, 42223, 42221, 42027, 18217, 18046, 17964, 17963, 17962, 17961, 17960
Chemical name : DEQUEST® 2006
Other means of identification : DEQUEST® 2006
Product type : liquid

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

Identified uses
Industrial use of water treatment products

Uses advised against
Reason : The supplier has no experience or data on this use.

Supplier's details : Italmatch UK Ltd.

Corporation Road,
 Newport,
 South Wales, United Kingdom
 NP19 4XF
 (00)44 (0)1633 75 4200
 Monday - Friday (9.00 - 17.00) /

Emergency telephone number (with hours of operation) : For Chemical Emergency Spill, Leak, Fire, Exposure or Accident Call CHEMTREC Day or Night:
 National contact
 +1-800-424-9300
 International Emergency Telephone number: +1-703-527-3887 (call collect)

Initial Supplier Identifier
 Données relatives au fournisseur
Univar Solutions Canada Ltd.
 64 Arrow Road
 North York, ON M9M 2L9
 Telephone: 1-866-686-4827

Section 2. Hazard identification

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.
Hazards not otherwise classified : Exposure to decomposition products may cause a health hazard.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Chemical name : DEQUEST® 2006
Other means of identification : DEQUEST® 2006

Ingredient name	% (w/w)	CAS number
Ammonium hydroxide	0 - < 0.5	1336-21-6

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products: Get medical attention immediately.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed**Potential acute health effects**

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	:	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	:	None known.
Specific hazards arising from the chemical	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon monoxide, carbon dioxide, nitrogen oxides, phosphorus oxides, Phosphine
Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated

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Remark : in positive pressure mode.
: Not applicable.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See

also Section 8 for additional information on hygiene measures.

**Conditions for safe storage,
including any incompatibilities**

- : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Storage temperature

- : Do not store below the following temperature: -10 °C

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls

- : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved

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	standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state	: liquid [liquid]
Color	: Colorless to light yellow.
Odor	: Ammoniacal.
Odor threshold	: Not applicable.
pH	: 10 - 11 [Conc. (% w/w): 10 g/l]
Melting point	: -16 °C (3 °F)
Boiling point	: Not available.
Flash point	: Not applicable.
Burning time	: Not applicable.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Non-flammable.
Lower and upper explosive (flammable) limits	: Lower: Not available. Upper: Not applicable.
Vapor pressure	: Not applicable.
Vapor density	: Not applicable.
Relative density	: 1.4 @ 20 °C (68 °F)
Solubility	: Miscible in water.
Solubility in water	: Not available.
Partition coefficient: n-octanol/water	: Not applicable.

Auto-ignition temperature	:	Not applicable.
Decomposition temperature	:	Not available.
Viscosity	:	Dynamic: Not applicable.
		Kinematic: 57.5 mm ² /s @ 20 °C (68 °F)
		7.7 mm ² /s @ 60 °C (140 °F)
		17.4 mm ² /s @ 40 °C (104 °F)
Flow time (ISO 2431)	:	Not available.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Incompatible materials	:	Reactive or incompatible with the following materials: oxidising materials, metals, acids
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced., May release dangerous gases (PHOSPHINE) under certain conditions.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium hydroxide				
	LD50 Oral	Rat	350 mg/kg	-
DEQUEST® 2006				
	LD50 Oral	Rat	> 17,800 mg/kg	-
	LD50 Dermal	Rabbit	> 15,800 mg/kg	-

Conclusion/Summary : Conclusive but not sufficient for classification.

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Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ammonium hydroxide	Eyes - Severe irritant	Rabbit	-	0.008 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-

Conclusion/Summary

Skin : Conclusive but not sufficient for classification.
Eyes : Conclusive but not sufficient for classification.
Respiratory : Conclusive but not sufficient for classification.

Sensitization**Conclusion/Summary**

Skin : Conclusive but not sufficient for classification.
Respiratory : Conclusive but not sufficient for classification.

Mutagenicity

Conclusion/Summary : Not mutagenic in a standard battery of genetic toxicological tests.

Carcinogenicity

Conclusion/Summary : Conclusive but not sufficient for classification.

Reproductive toxicity

Conclusion/Summary : Conclusive but not sufficient for classification.

Teratogenicity

Conclusion/Summary : Conclusive but not sufficient for classification.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
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Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of : Not available.

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exposure**Potential acute health effects**

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure**Short term exposure**

Potential immediate effects	:	No known significant effects or critical hazards.
Potential delayed effects	:	No known significant effects or critical hazards.

Long term exposure

Potential immediate effects	:	No known significant effects or critical hazards.
Potential delayed effects	:	No known significant effects or critical hazards.

Potential chronic health effects

Conclusion/Summary	:	Conclusive but not sufficient for classification.
General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	No known significant effects or critical hazards.

Numerical measures of toxicity**Acute toxicity estimates**

N/A

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Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Ammonium hydroxide			
	Acute LC50 37 mg/l Fresh water	Fish - Gambusia affinis	96 h
	Acute LC50 0.66 mg/l Fresh water	Daphnia	48 h
DEQUEST® 2006			
	Acute LC50 > 330 mg/l	Rainbow trout,donaldson trout	96 h
	Acute LC50 > 330 mg/l	Bluegill	96 h
	Acute EC50 297 mg/l	Water flea	48 h
Remarks - Acute - Aquatic invertebrates.:	Conclusive but not sufficient for classification.		

Conclusion/Summary : Conclusive but not sufficient for classification.

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
DEQUEST® 2006	301D Ready Biodegradability - Closed Bottle Test	20 % - 30 d	-	-
	302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	23 % - 28 d	-	-

Conclusion/Summary : Not readily biodegradable.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TDG Classification	DOT Classification	IMDG	IATA
UN number				
UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
Transport hazard class(es)	-	-		
Packing group				
Environmental hazards	No.	No.	No.	No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments **Proper shipping name** : Not applicable

Section 15. Regulatory information

Canadian lists

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Canadian NPRI : None of the components are listed.
CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals**Heavy metals - Annex 1**

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Europe	:	All components are listed or exempted.
Japan	:	Japan inventory (ENCS): All components are listed or exempted.
		Japan inventory (ISHL): All components are listed or exempted.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Thailand	:	All components are listed or exempted.
Turkey	:	All components are listed or exempted.
United States	:	All components are listed or exempted.
Viet Nam	:	All components are listed or exempted.

Section 16. Other information**History**

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Prepared by	:	POLLAD
Key to abbreviations	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals HPR = Hazardous Products Regulations

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IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973
as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Procedure used to derive the classification

Classification	Justification
Not classified.	

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.