Material Safety Data Sheet
Aqualine Complete 5, 2, & 1
MSDS# 89807

Section 1 - Chemical Product and Company Identification
MSDS Name:
Aqualine Complete 5, 2, & 1
Catalog Numbers:
K/1900/08, K/1900/15, K/1950/08, K/1950/15, K/1950/17, K/2000/08, K/2000/15
K/2000/17
Synonyms:
None.
Company Identification: Abbey Chemicals, 27-30 North River Road, Great Yarmouth, Norfolk, NR30 1SH
For information in Europe, call: +44 (1493) 850303
Emergency Number, Europe: +44 (1493) 850303

Section 2 - Composition, Information on Ingredients

CAS#: 111-90-0
Chemical Name: Diethylene glycol monoethyl ether
%: 65-85
EINECS#: 203-919-7
Hazard Symbols:
Risk Phrases:

CAS#: 288-32-4
Chemical Name: Imidazole
%: 9-14
EINECS#: 206-019-2
Hazard Symbols:
Risk Phrases:

CAS#: 7446-09-5
Chemical Name: Sulfur dioxide
%: 4-6
EINECS#: 231-195-2
Hazard Symbols:
Risk Phrases:

CAS#: 7553-56-2
Chemical Name: Iodine
%: 2-13
EINECS#: 231-442-4
Hazard Symbols:
Risk Phrases:

Text for R-phrases: see Section 16
Hazard Symbols:
C N
Risk Phrases:
20/21/22 34 50

Section 3 - Hazards Identification
EMERGENCY OVERVIEW

Harmful by inhalation, in contact with skin and if swallowed. Causes burns. Very toxic to aquatic organisms.

Potential Health Effects

Eye:

Causes eye burns. May cause transient corneal injury. Causes redness and pain.

Skin:

Causes skin burns. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

Ingestion:

Harmful if swallowed. Causes gastrointestinal tract burns. May cause kidney damage. May cause central nervous system depression. May cause thyroid abnormalities. May produce aplastic anemia with tremors and marked mental dullness. May produce blood disturbances with or without neurological signs.

Inhalation:

Causes chemical burns to the respiratory tract. May cause kidney damage. May cause edema of lungs or glottis and can produce respiratory paralysis. Harmful if inhaled.

Chronic:

May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects. Chronic exposure can affect thyroid function. May cause kidney damage.

Section 4 - First Aid Measures

Eyes:

Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

Skin:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion:

If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician:

Monitor kidney function closely.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. May form explosive peroxides. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media:

Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Do not flush into a sewer. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling:

Do not breathe dust, mist, or vapor. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.

Store protected from light. If peroxide formation is suspected, do not open or move container. Discard contaminated shoes. Use only with adequate ventilation.

Storage:

Do not store in direct sunlight. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. After opening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. Addition of water or appropriate reducing materials will lessen peroxide formation.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits
CAS# 111-90-0:

Germany: 6 ppm TWA (exposure factor 2); 35 mg/m3 TWA (exposure factor 2)
Netherlands: 32 ppm MAC; 180 mg/m3 MAC
CAS# 288-32-4:
CAS# 7446-09-5:
United States OSHA: 5 ppm TWA; 13 mg/m3 TWA
Belgium - TWA: 2 ppm TWA; 5.3 mg/m3 TWA
Belgium - STEL: 5 ppm STEL; 13 mg/m3 STEL
France - VME: 2 ppm VME; 5 mg/m3 VME
France - VLE: 5 ppm VLCT; 10 mg/m3 VLCT
Malaysia: 2 ppm TWA; 5.2 mg/m3 TWA
Netherlands: 2 ppm MAC; 5 mg/m3 MAC
Spain: 2 ppm VLA-ED; 5.3 mg/m3 VLA-ED
Spain: 5 ppm VLA-EC; 13 mg/m3 VLA-EC
CAS# 7553-56-2:
United Kingdom, WEL - STEL: 0.1 ppm STEL; 1.1 mg/m3 STEL
United States OSHA: ; 0.1 ppm Ceiling; 1 mg/m3 Ceiling
Belgium - TWA: 0.1 ppm TWA; 1 mg/m3 TWA
France - VLE: 0.1 ppm VLCT; 1 mg/m3 VLCT
Japan: 0.1 ppm OEL; 1 mg/m3 OEL
Malaysia: 0.1 ppm Ceiling; 1.0 mg/m3 Ceiling
Netherlands: 0.1 ppm MAC; 1 mg/m3 MAC
Spain: 0.1 ppm VLA-EC; 1 mg/m3 VLA-EC
Personal Protective Equipment
Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin:
Wear appropriate protective gloves to prevent skin exposure.
Clothing:
Wear appropriate protective clothing to prevent skin exposure.
Respirators:
A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State:	Liquid
Color:	brown
Odor:	alcohol-like
pH:	Not available
Vapor Pressure:	Not available
Viscosity:	Not available
Boiling Point:	Not available
Freezing/Melting Point:	Not available
Autoignition Temperature:	Not available.
Flash Point:	Not available

Explosion Limits: Lower:Not available
Explosion Limits: Upper:Not available
Decomposition Temperature: Not available
Solubility in water: Miscible
Specific Gravity/Density:
Molecular Formula: Solution
Molecular Weight: 0

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures. Explosive peroxides may form on concentration. Peroxides can be detonated by friction, impact, or heating.
Conditions to Avoid:
Ignition sources, excess heat.
Incompatibilities with Other Materials
Strong oxidizing agents, strong acids, acid anhydrides, acid chlorides.
Hazardous Decomposition Products
Carbon monoxide, oxides of nitrogen, oxides of sulfur, carbon dioxide.
Hazardous Polymerization
Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 111-90-0: KK8750000
CAS# 288-32-4: NI3325000
CAS# 7446-09-5: WS4550000
CAS# 7553-56-2: NN1575000
LD50/LC50:
RTECS: CAS# 111-90-0: Dermal, guinea pig: LD50 = >32 gm/kg; Draize test, rabbit, eye: 500 mg Moderate; Draize test, rabbit, eye: 125 mg Mild; Draize test, rabbit, skin: 500 mg/24H Mild; Inhalation, rat: LC50 = >5240 mg/m3/4H; Oral, mouse: LD50 = 6600 uL/kg; Oral, mouse: LD50 = 7250 mg/kg; Oral, rabbit: LD50 = 3620 mg/kg; Oral, rat: LD50 = 5500 uL/kg; Oral, rat: LD50 = 7500 mg/kg; Skin, rabbit: LD50 = 4200 uL/kg; Skin, rabbit: LD50 = 8.5 ml/kg/2H; Skin, rat: LD50 = 6 mL/kg;.
RTECS: CAS# 288-32-4: Oral, mouse: LD50 = 880 mg/kg; Oral, rat: LD50 = 220 mg/kg;.
RTECS: CAS# 7446-09-5: Draize test, rabbit, eye: 6 ppm/32D Mild; Inhalation, mouse: LC50 = 3000 ppm/30M; Inhalation, rat: LC50 = 2520 ppm/1H; Inhalation, rat: LC50 = 2168 mg/m3;.
RTECS: CAS# 7553-56-2: Oral, mouse: LD50 = 22 gm/kg; Oral, mouse: LD50 = 1000 mg/kg; Oral, rabbit: LD50 = 10 gm/kg; Oral, rat: LD50 = 14 gm/kg;.
Carcinogenicity:
Diethylene glycol monoethyl ether -
Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Imidazole -
Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Sulfur dioxide -
IARC: Group 3 (not classifiable)
Iodine -
Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:

See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity:
Fish: Pseudomonas putida:

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location.
Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

IATA

Shipping Name:	CORROSIVE LIQUIDS, N.O.S.
Hazard Class:	8
UN Number:	1760
Packing Group:	III

IMO

Shipping Name:	CORROSIVE LIQUIDS, N.O.S.
Hazard Class:	8
UN Number:	1760
Packing Group:	III

RID/ADR

Shipping Name:	CORROSIVE LIQUIDS, N.O.S.
Hazard Class:	8
UN Number:	1760
Packing Group:	III

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: C N
Risk Phrases:
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 34 Causes burns.
R 50 Very toxic to aquatic organisms.
Safety Phrases:
S 23 Do not inhale gas/fumes/vapour/spray.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.
WGK (Water Danger/Protection)
CAS# 111-90-0: 1
CAS# 288-32-4: 1
CAS# 7446-09-5: 1
CAS# 7553-56-2: 1
Canada
CAS# 111-90-0 is listed on Canada's DSL List
CAS# 288-32-4 is listed on Canada's DSL List

CAS# 7446-09-5 is listed on Canada's DSL List
CAS# 7553-56-2 is listed on Canada's DSL List
US Federal
TSCA
CAS# 111-90-0 is listed on the TSCA Inventory.
CAS# 288-32-4 is listed on the TSCA Inventory.
CAS# 7446-09-5 is listed on the TSCA Inventory.
CAS# 7553-56-2 is listed on the TSCA Inventory.

Section 16 - Other Information

Text for R-phrases from Section 2
MSDS Creation Date:
3/16/1999
Revision #9 Date
5/21/2007
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
