SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : BYK-052  
Product Use Description : Defoamer  
Company : BYK USA Inc.  
524 South Cherry Street  
Wallingford CT 06492  
Prepared by : J.Nole, Safety; M.McCutcheon, Regulatory  
Telephone : (203) 265-2086  
Visit our web site : www.byk.com  
E-mail address : ehs.byk.usa@altana.com  
Emergency telephone : CHEMTREC 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview  
Form : liquid  
Colour : colourless  
Odour : hydrocarbon-like

OSHA Regulatory Status  
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR1910.1200)

Potential Health Effects  
Eyes : Contact with liquid or vapor may cause irritation.  
Skin : Contact may cause irritation.  
Ingestion : Ingestion may irritate the digestive tract; high dosages may cause CNS depression.  
Inhalation : High concentrations of vapors may be irritating to the respiratory tract. May cause CNS depression (drowsiness, loss of coordination and fatigue); narcosis.  
Other Acute Effects : Absorption of 2-Butoxyethanol may cause acute red blood cell damage and kidney effects. Inhalation of 2-Butoxyethanol has damaged the kidneys of laboratory animals. OSHA PEL-TWA for 2-butoxyethanol = 50 ppm (skin)  
Chronic Exposure : Absorption of 2-Butoxyethanol by inhalation and/or repeated skin contact may cause injury to liver, kidney and blood damage. 
2-Butoxyethanol is considered fetotoxic; has caused toxic reproductive effects in laboratory animals at maternally toxic doses.
2-Butoxyethanol had both positive and negative results in in vitro mutagenicity studies. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal. The NTP has determined 2-Butoxyethanol is potentially carcinogenic to mice. The relevance to humans is unknown.

Aggravated Medical Condition: May be aggravating to some
- skin conditions
- asthma-type conditions
- pre-existing liver and/or kidney disorders

Primary Routes of Entry:
- Skin contact
- Skin absorption
- Inhalation
- Eyes
- Ingestion

Carcinogenicity:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>2-Butoxyethanol</th>
<th>111-76-2</th>
</tr>
</thead>
</table>

Environmental Effects: No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Solution of foam destroying polymers, silicone free

Hazardous components
SECTION 4. FIRST AID MEASURES

First aid procedures

Inhalation : Remove to fresh air. Administer artificial respiration if necessary. Get medical aid as soon as possible.

Skin contact : Remove contaminated clothing. Wash thoroughly with soap and water.

Eye contact : Immediately flush with plenty of water for at least 20 minutes. Get medical aid.

Ingestion : Do not induce vomiting; aspiration hazard. Dilute with 1-2 glasses of water. Get medical aid. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs.

Notes to physician

Risks : No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point : 34 °C (93.20 °F)
   Method: 48 (Abel-Pensky)

Ignition temperature : 210 °C (410.00 °F)
   Method: calculated

Lower explosion limit : 0.60 %(V)

Upper explosion limit : 10.60 %(V)

Suitable extinguishing media : Foam
   Carbon dioxide (CO2)
   Dry chemical
Unsuitable extinguishing media: No information available.
Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus.
Specific hazards during fire fighting: Cool closed containers exposed to fire with water spray. Will not explode on mechanical impact.
Hazardous decomposition products due to incomplete combustion: Carbon oxides
Further information: Keep away from heat and sources of ignition. Keep away from oxidizing agents.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Eliminate all sources of ignition. Ventilate area if indoors. Wear self-contained breathing apparatus and full protective clothing.
Environmental precautions: Prevent spilled material from entering the ground, water and/or air by using appropriate containment methods.
Methods for containment: Stop leak. Dike and contain spill.
Methods for cleaning up: Pump into salvage tanks and/or absorb with suitable material. Use sparkless shovels to remove material.
Additional advice: No further information is available.

SECTION 7. HANDLING AND STORAGE

Handling

Storage
Advice on common storage: Keep product and empty container away from heat and sources of ignition. Take precautionary measures against static discharges. Keep in a dry, cool and well-ventilated place.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stoddard Solvent (Mineral spirits)</td>
<td>8052-41-3</td>
<td>TWA</td>
<td>100 ppm 525 mg/m3</td>
<td>1994-09-01</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>500 ppm 2,900 mg/m3</td>
<td>1993-06-30</td>
<td>OSHA P1</td>
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<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>TWA</td>
<td>20 ppm</td>
<td>2003-01-01</td>
<td>ACGIH</td>
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<tr>
<td></td>
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<td></td>
<td>50 ppm 240 mg/m3</td>
<td>1993-06-30</td>
<td>OSHA P1</td>
</tr>
</tbody>
</table>

Engineering measures
Engineering measures : Use with local exhaust ventilation.

Personal protective equipment
Eye protection : Safety Glasses  Goggles
Hand protection : Nitrile rubber
Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection : Unless air monitoring demonstrates vapor/mist/dust levels are below the PEL/TLV wear a properly fitted respirator (NIOSH approved) or dust mask during exposure.
Hygiene measures : Clean long legged, long sleeved work clothes. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid
### SECTION 1. IDENTIFICATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td><strong>Material Safety Data Sheet</strong></td>
<td></td>
</tr>
<tr>
<td><strong>BYK-052</strong></td>
<td>Revision Date 11/05/2008 Print Date 11/05/2008</td>
</tr>
<tr>
<td><strong>Version 1</strong></td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 2. COMPOSITION

- Colour: colourless
- Odour: hydrocarbon-like
- Odor Threshold: no data available
- Flash point: 34 °C (93.20 °F) Method: 48 (Abel-Pensky)
- Ignition temperature: 210 °C (410.00 °F) Method: calculated
- Lower explosion limit: 0.60 %(V)
- Upper explosion limit: 10.60 %(V)
- pH: no data available
- Freezing point: no data available
- Initial boiling point: 144 °C (291.20 °F)
- Vapour pressure: 5.0000000 hPa at 20 °C (68.00 °F) Method: calculated
- Evaporation rate: no data available
- Density: 0.8200 g/cm³ at 20 °C (68.00 °F) Method: DIN EN ISO 2811-3
- Bulk density: not applicable
- Water solubility: immiscible
- Partition coefficient: n-octanol/water: no data available
- Viscosity, kinematic: 105.000 mm²/s at 20 °C (68.00 °F)
- Relative vapour density: no data available

### SECTION 10. STABILITY AND REACTIVITY

- Conditions to avoid: None known.
- Materials to avoid: Strong oxidizing agents, alkalis
- Hazardous decomposition products: None known.
- Chemical stability: Stable; polymerization will not occur
### SECTION 11. TOXICOLOGICAL INFORMATION

**Acute oral toxicity (Product):**
- LD50 rat
  - Dose: 17,700.000000 mg/kg
  - Method: OECD Test Guideline 401

**Acute oral toxicity (Component):**
- Component: Stoddard Solvent (Mineral spirits)
  - LD50 rat
    - Dose: > 6,000 mg/kg
  - Component: Hydroxy acetic acid butyl ester (Butyl glycolate)
    - LD50 rat
      - Dose: 4,595 mg/kg
    - Component: 2-Butoxyethanol
      - LD50 rat
        - Dose: 530 mg/kg
      - LD50 rabbit
        - Dose: 520 mg/kg

**Acute dermal toxicity (Component):**
- Component: Stoddard Solvent (Mineral spirits)
  - LD50 rabbit
    - Dose: > 3,000 mg/kg
  - Component: Hydroxy acetic acid butyl ester (Butyl glycolate)
    - LD50
      - no data available
  - Component: 2-Butoxyethanol
    - LD50 rabbit
      - Dose: 220 mg/kg
    - LD50 rabbit
      - Dose: 100 mg/kg

**Acute inhalation toxicity (Component):**
- Component: Stoddard Solvent (Mineral spirits)
  - LC50 rat
    - Dose: 5,500 mg/m3
  - Component: Hydroxy acetic acid butyl ester (Butyl glycolate)
    - LC50
      - no data available
  - Component: 2-Butoxyethanol
    - LC50 rat
      - Dose: 468 ppm
Skin irritation (Product) : rabbit
Result: Mild skin irritation
Method: OECD Test Guideline 404

Skin irritation (Component) : Component: 8052-41-3 Stoddard Solvent (Mineral spirits) rabbit
Result: Moderate skin irritation
Component: 7397-62-8 Hydroxy acetic acid butyl ester (Butyl glycolate) rabbit
Result: Moderate skin irritation
Component: 111-76-2 2-Butoxyethanol rabbit
Result: Moderate skin irritation

Eye irritation( Component) : Component: 8052-41-3 Stoddard Solvent (Mineral spirits) rabbit
Result: Eye irritation
Component: 7397-62-8 Hydroxy acetic acid butyl ester (Butyl glycolate) rabbit
Result: Corrosive to eyes
Component: 111-76-2 2-Butoxyethanol rabbit
Result: Eye irritation

Sensitisation (Product) : no data available

SECTION 12. ECOLOGICAL INFORMATION
Additional ecological information (Product) : no data available

SECTION 13. DISPOSAL CONSIDERATIONS
Further information : Dispose of in accordance with applicable local/municipal, state/provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION
Container sizes: 55 gallon drums, 5 or 6-gallon pails, 2oz/16oz samples)
DOT
UN Number : 1268
Proper shipping name : Petroleum distillates, n.o.s.
Class : 3
Packing group : III
Emergency Response : 128
Guidebook Number

IATA
UN Number : 1268
Description of the goods : Petroleum distillates, n.o.s.
Class : 3
Packing group : III
ICAO-Labels : 3
Packing instruction (cargo aircraft) : 310
Packing instruction (passenger aircraft) : 309
Package Instruction (Limited quantity) : Y309

IMDG
UN Number : UN 1268
Description of the goods : Petroleum distillates, n.o.s.
Class : 3
Packing group : III
IMDG-Labels : 3
EmSNumber1 : F-E
EmSNumber2 : S-E
Marine pollutant : yes

SECTION 15. REGULATORY INFORMATION

HMIS Classification : Health Hazard: 1
Chronic Health Hazard: *
Flammability: 3
Reactivity: 0
PPI:B

National Fire Protection Association (NFPA) Class : IC

Emergency Planning Community Right-To-Know (EPCRA)

SARA 302 Components : Not applicable

If listed below, this product contains toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

SARA 303 Components : 2-Butoxyethanol 111-76-2 1.0%
SARA 313 Components : 1,2,4-Trimethylbenzene 95-63-6 3.0%
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<table>
<thead>
<tr>
<th>SARA 311/312 Hazards</th>
<th>Chronic Health Hazard Fire Hazard</th>
</tr>
</thead>
</table>

**Toxic Substances Control Act (TSCA)**

**TSCA Status**

We certify that all of the components of this product are either listed on the TSCA Inventory or are not subject to the notification requirements (exempt)

**Section 4 / 12(b)**

Not applicable

**Clean Air Act & Related Information**

**Non-volatile (Wt)**

19 - 21 %
Method: 22 (10min/150°C)
DIN EN ISO 3251

**Ozone Depleting Substances**

Not applicable.

Non-volatile information is not a specification.

**Hazardous Air Pollutants**

If not listed above, this product does not contain HAPs at 1% or 0.1% or greater. Refer to Section 3 for HAP weight percentage.

**Resource Conservation and Recovery Act**

**EPA Hazardous Waste Code(s)**

D001  Ignitable
D018  Benzene

**State Laws**

**Massachusetts Right To Know Components**

<table>
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<td>2-Butoxyethanol</td>
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</table>

**Pennsylvania Right To Know Components**

<table>
<thead>
<tr>
<th>7397-62-8</th>
</tr>
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<tbody>
<tr>
<td>Hydroxy acetic acid butyl ester (Butyl glycolate)</td>
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</tr>
<tr>
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<tr>
<td>2-Butoxyethanol</td>
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</table>

**New Jersey Right To Know Components**

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Stoddard Solvent (Mineral spirits)</td>
</tr>
<tr>
<td>-</td>
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</tbody>
</table>
Hydroxy acetic acid butyl ester (Butyl glycolate) 7397-62-8
2-Butoxyethanol 111-76-2

New Jersey Trade Secret Registry Number for the product (NJ TSRN) : 800963-5505

California Prop. 65 Components : WARNING: This product contains a chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

Contains or Trace concentrations Benzene

CONEG Heavy Metal: We certify that this product does not contain Lead, Mercury, Cadmium or hexavalent chromium in the sum concentration of 100 ppm by weight or greater.

Canadian Environmental Protection Act

Domestic Substances List DSL Status : We certify that all of the components of this product are listed on the DSL.

WHMIS Classification : B2
D1A
D2A

SECTION 16. OTHER INFORMATION

Further information
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.