SECTION 1. IDENTIFICATION

Product name : BYK-053

Manufacturer or supplier's details
Company : BYK USA Inc.
524 South Cherry Street
Wallingford CT 06492
Telephone : (203) 265-2086
Visit our web site : www.byk.com
E-mail address : ehs.byk.usa@altana.com
Emergency telephone number : 203-265-2086; CHEMTREC 1-800-424-9300 / +1 703-527-3887

Recommended use of the chemical and restrictions on use
Recommended use : Air Release Additive
Restrictions on use : Refer to Section 15 for any restrictions that may apply

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids : Category 3
Eye irritation : Category 2B
Reproductive toxicity : Category 2
Specific target organ toxicity - single exposure : Category 3 (Respiratory system, Central nervous system)
Specific target organ toxicity - repeated exposure : Category 2 (Kidney)

GHS Label element
Hazard pictograms :

Signal word : Warning
Hazard statements : H226 Flammable liquid and vapour.
H320 Causes eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs (Kidney) through prolonged
or repeated exposure.

Precautionary statements:

**Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
P281 Use personal protective equipment as required.

**Response:**
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

**Disposal:**
P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**
None known.

---

**SECTION 3. COMPOSITION-INFORMATION ON INGREDIENTS**

**Chemical nature:**
Solution of foam destroying polymers, silicone free
Hazardous components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha, petroleum, hydrodesulfurized heavy</td>
<td>64742-82-1</td>
<td>&gt;= 70 - &lt; 71</td>
</tr>
<tr>
<td>Hydroxy acetic acid butyl ester (Butyl glycolate)</td>
<td>7397-62-8</td>
<td>&gt;= 8 - &lt; 9</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>&gt;= 1 - &lt; 2</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

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

In case of skin contact: Remove contaminated clothing. Wash thoroughly with soap and water.

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

If swallowed: 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. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: No information available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media: No information available.

Specific hazards during firefighting: Cool closed containers exposed to fire with water spray. Will not explode on mechanical impact.

Hazardous combustion products: Carbon oxides

Further information: Keep away from heat and sources of ignition. Keep away from oxidizing agents.
Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: 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 and materials for containment and cleaning up: Stop leak. Dike and contain spill. Pump into salvage tanks and/or absorb with suitable material. Use sparkless shovels to remove material.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling: Harmful in contact with skin. Avoid contact with skin and eyes. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Handle as an industrial chemical. Keep container tightly closed. Ensure all equipment is electrically grounded before beginning transfer operations. Containers should be grounded when being emptied. Vapours may travel to areas away from work site before igniting/ flashing back to Vapour source.

Conditions for safe storage: Keep in a dry, cool and well-ventilated place. Keep product and empty container away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.

Materials to avoid: Keep away from oxidizing agents. Keep away from strong bases.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>TWA</td>
<td>20 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>50 ppm</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>240 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>
Engineering measures: Use with local exhaust ventilation.

Personal protective equipment
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.

Hand protection
Material: Nitrile rubber

Eye protection: Safety Glasses
Goggles

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

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

Appearance: liquid

Colour: colourless

Odour: hydrocarbon-like

Odour Threshold: No data available

pH: No data available

Melting point/range: No data available

Initial boiling point: 291.20 °F (144.00 °C)

Flash point: 93.20 °F (34.00 °C)
Method: 48 (Abel-Pensky)

Evaporation rate: No data available

Upper explosion limit: 10.60 % (V)

Lower explosion limit: 0.60 % (V)

Vapour pressure: 5.0000000 hPa (68.00 °F (20.00 °C))
Method: calculated
Relative vapour density : No data available
Relative Density/Specific Gravity : No data available
Density : 0.8200 g/cm³ (68.00 °F (20.00 °C))
  Method: 4 (20°C oscillating U-tube)
Bulk density : Not applicable
Solubility(ies)
  Water solubility : immiscible
Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : 410.00 °F (210.00 °C)
  Method: calculated
Thermal decomposition : No data available
Viscosity
  Viscosity, dynamic : No data available
  Viscosity, kinematic : 165.000 mm²/s (68.00 °F (20.00 °C))
  : 134 mm²/s (104.00 °F (40.00 °C))
Surface tension : No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.
Chemical stability : Stable; polymerization will not occur
Possibility of hazardous reactions : No data available
Conditions to avoid : None known.
Incompatible materials : Strong oxidizing agents
## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure
- **Skin contact**
- **Skin absorption**
- **Inhalation**
- **Eyes**
- **Ingestion**

#### Acute toxicity

**Product:**
- **Acute oral toxicity**: LD50 (Rat): 14,400 mg/kg  
  Method: OECD Test Guideline 401  
  Remarks: The toxicological data has been taken from products of similar composition.
- **Acute inhalation toxicity**: Acute toxicity estimate: > 40 mg/l  
  Exposure time: 4 h  
  Test atmosphere: vapour  
  Method: Calculation method
- **Acute dermal toxicity**: Acute toxicity estimate: > 5,000 mg/kg  
  Method: Calculation method

**Components:**

- **64742-82-1 Naphtha, petroleum, hydrodesulfurized heavy:**
  - **Acute oral toxicity**: LD50 (Rat): > 5,000 mg/kg
  - **Acute inhalation toxicity**: LC50 (Rat): > 11.6 mg/l
  - **Acute dermal toxicity**: LD50 (Rabbit): > 3,000 mg/kg

- **7397-62-8 Hydroxy acetic acid butyl ester (Butyl glycolate):**
  - **Acute oral toxicity**: LD50 (Rat): 4,595 mg/kg

- **111-76-2 2-Butoxyethanol:**
  - **Acute oral toxicity**: LD50 (Rat): 530 mg/kg
  - LD50 (Rabbit): 520 mg/kg
  - **Acute inhalation toxicity**: LC50 (Rat): 468 ppm  
    Exposure time: 4 h
  - **Acute dermal toxicity**: LD50 (Rabbit): 220 mg/kg
LD50 (Rabbit): 100 mg/kg

**Skin corrosion/irritation**

**Product:**
Species: Rabbit
Method: OECD Test Guideline 404
Result: Mild skin irritation
Remarks: The toxicological data has been taken from products of similar composition.

**Components:**
64742-82-1 Naphtha, petroleum, hydrodesulfurized heavy:
Species: Rabbit
Result: Moderate skin irritation

7397-62-8 Hydroxy acetic acid butyl ester (Butyl glycolate):
Species: Rabbit
Result: Moderate skin irritation

111-76-2 2-Butoxyethanol:
Species: Rabbit
Result: Moderate skin irritation

**Serious eye damage/eye irritation**

**Product:**
Species: Rabbit
Result: Mild eye irritation
Method: OECD Test Guideline 405
Remarks: The toxicological data has been taken from products of similar composition.

**Components:**
64742-82-1 Naphtha, petroleum, hydrodesulfurized heavy:
Species: Rabbit
Result: Eye irritation

7397-62-8 Hydroxy acetic acid butyl ester (Butyl glycolate):
Species: Rabbit
Result: Corrosive to eyes

111-76-2 2-Butoxyethanol:
Species: Rabbit
Result: Eye irritation
Method: OECD Test Guideline 405
GLP: yes
Respiratory or skin sensitisation

Product:
Remarks: No data available

Components:
7397-62-8 Hydroxy acetic acid butyl ester (Butyl glycolate):
Test Type: Maximisation Test (GPMT)
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.
GLP: yes

111-76-2 2-Butoxyethanol:
Test Type: Maximisation Test (GPMT)
Exposure routes: Dermal
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.
GLP: yes

Carcinogenicity

IARC
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.

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

OSHA
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.

NTP
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.

Repeated dose toxicity

Product:
Remarks: 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.
In a 2 yr. cancer study, the NTP has determined 2-butoxyethanol has a potential to cause cancer (potentially carcinogenic to mice) but there is not enough evidence to list 2-butoxyethanol as a carcinogen. The relevance to humans is unknown.

**Experience with human exposure**

**Product:**

**Inhalation:**

Symptoms: High concentrations of vapors may be irritating to the respiratory tract. May cause CNS depression (drowsiness, loss of coordination and fatigue); narcosis.

**Skin contact:**

Symptoms: Contact may cause irritation.

**Eye contact:**

Symptoms: Contact with liquid or vapor may cause irritation.

**Ingestion:**

Symptoms: Ingestion may irritate the digestive tract; high dosages may cause CNS depression.

**Further information**

**Product:**

Remarks: 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)

---

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish : Remarks: No data available

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: No data available
Bioaccumulative potential

**Product:**
Bioaccumulation : Remarks: No data available

Mobility in soil
No data available

Other adverse effects
No data available

**Product:**
Regulation : 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There is no data available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**
EPA Hazardous Waste Code(s) : D001: Ignitable
D018: Benzene

Waste from residues : Dispose of in accordance with applicable local/municipal, state/provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

**International Regulation**

**IATA-DGR**
UN/ID No. : UN 1268
Proper shipping name : Petroleum distillates, n.o.s.
Class : 3
Packing group : III
Labels : Flammable liquid
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355
IMDG-Code
UN number : UN 1268
Proper shipping name : PETROLEUM DISTILLATES, N.O.S.
Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-E
Marine pollutant : yes
Remarks : IMDG Code segregation group - none

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations
49 CFR
UN/ID/NA number : UN 1268
Proper shipping name : Petroleum distillates, n.o.s.
Class : 3
Packing group : III
Labels : Flammable liquid
ERG Code : 128
Marine pollutant : no
Container sizes: 55 gallon drums, 5 or 6-gallon pails, 2oz/16oz samples

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a SARA 302 RQ.

SARA 311/312 Hazards : Acute Health Hazard
            Fire Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313: This product contains the following 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.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1%</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

Non-volatile (Wt): 19 - 21 %
Method: 22 (10min/150°C)
DIN EN ISO 3251
Non-volatile information is not a specification.

Massachusetts Right To Know
2-Butoxyethanol 111-76-2

Pennsylvania Right To Know
- Naphtha, petroleum, hydrodesulfurized heavy 64742-82-1
- Polymer -
- Hydroxy acetic acid butyl ester (Butyl glycolate) 7397-62-8
- 2-Butoxyethanol 111-76-2

New Jersey Right To Know
- Naphtha, petroleum, hydrodesulfurized heavy 64742-82-1
- Polymer -
- 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
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Benzene 71-43-2
WARNING! This product contains a chemical known to the State of California to cause cancer.

- Benzene 71-43-2
- Naphthalene 91-20-3
- Ethylbenzene 100-41-4
- 1,4-Dioxane 123-91-1

CONEG Heavy Metal: We confirm that we use packaging and/or packaging components in which the sum of the incidental concentration levels of lead, mercury, cadmium and hexavalent chromium do not exceed 100 parts per million by weight.

The components of this product are reported in the following inventories:

- TSCA: 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 per 40 CFR 720 30(h).
- Section 4 / 12(b): Not applicable
- DSL: We certify that all of the components of this product are listed on the DSL.

SECTION 16. OTHER INFORMATION

Revision Date: 04/29/2015

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.