SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: QSR MULTI-PURPOSE SINK DETERGENT
Other means of identification: Not applicable
Recommended use: Cleaning product
Restrictions on use: Reserved for industrial and professional use.

Company: Kay Chemical Company
8300 Capital Drive
Greensboro, North Carolina USA 27409
1-800-529-5458

Emergency telephone: 1-877-231-2615 (USA/Canada), 952-853-1713 (outside USA)
Issuing date: 05/11/2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Product AS SOLD
Eye irritation: Category 2B
Carcinogenicity: Category 2

Product AT USE DILUTION
Not a hazardous substance or mixture.

GHS Label element
Product AS SOLD
Hazard pictograms:

Signal Word: Warning
Hazard Statements: Causes eye irritation. Suspected of causing cancer.
Precautionary Statements: Prevention:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash skin thoroughly after handling. Use personal protective equipment as required.
Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.
Storage:
Store locked up.
Disposal:
Dispose of contents/container to an approved waste disposal plant.
SAFETY DATA SHEET
QSR MULTI-PURPOSE SINK DETERGENT

Product AT USE DILUTION
Precautionary Statements: Prevention:
Wash hands thoroughly after handling.
Response:
Get medical advice/attention if you feel unwell.
Storage:
Store in accordance with local regulations.

Other hazards: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD
Pure substance/mixture: Mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Alkanesulphonates amides, coco, n,n-bis(hydroxyethyl)</td>
<td>68439-57-6</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Sodium poly(oxyethylene) dodecyl ether sulfate ethanol</td>
<td>68585-34-2</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Sodium Xylenesulfonate</td>
<td>1300-72-7</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>1 - 5</td>
</tr>
<tr>
<td>2,2'-iminodiethanol</td>
<td>111-42-2</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

Product AT USE DILUTION
No hazardous ingredients

SECTION 4. FIRST AID MEASURES

Product AS SOLD
In case of eye contact: Rinse with plenty of water.
In case of skin contact: Rinse with plenty of water.
If swallowed: Rinse mouth. Get medical attention if symptoms occur.
If inhaled: Get medical attention if symptoms occur.
Protection of first-aiders: No special precautions are necessary for first aid responders.
Notes to physician: Treat symptomatically.
Most important symptoms and effects, both acute and delayed: See Section 11 for more detailed information on health effects and symptoms.

Product AT USE DILUTION
In case of eye contact: Rinse with plenty of water.
In case of skin contact: Rinse with plenty of water.
If swallowed: Rinse mouth. Get medical attention if symptoms occur.
If inhaled: Get medical attention if symptoms occur.
SECTION 5. FIRE-FIGHTING MEASURES

Product AS SOLD

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: None known.

Specific hazards during fire fighting: Not flammable or combustible.

Hazardous combustion products: Decomposition products may include the following materials:
- Carbon oxides
- Nitrogen oxides (NOx)
- Sulfur oxides
- Oxides of phosphorus

Special protective equipment for fire-fighters: Use personal protective equipment.

Specific extinguishing methods: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

Personal precautions, protective equipment and emergency procedures: Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up: Stop leak if safe to do so. 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). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Product AT USE DILUTION

Personal precautions, protective equipment and emergency procedures: Refer to protective measures listed in sections 7 and 8.

Environmental precautions: No special environmental precautions required.

Methods and materials for containment and cleaning up: Stop leak if safe to do so. 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). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

Product AS SOLD

Advice on safe handling: Wash hands thoroughly after handling.
Conditions for safe storage: Keep out of reach of children. Store in suitable labeled containers.

Storage temperature: 5 °C to 50 °C

Product AT USE DILUTION
Advice on safe handling: Wash hands after handling. For personal protection see section 8.

Conditions for safe storage: Keep out of reach of children. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD
Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Form of exposure</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>TWA</td>
<td>1,000 ppm 1,900 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm 1,900 mg/m³</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>WEEL</td>
</tr>
<tr>
<td>2,2’-iminodiethanol</td>
<td>111-42-2</td>
<td>TWA (Inhalable fraction and vapor)</td>
<td>1 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>3 ppm 15 mg/m³</td>
<td>NIOSH REL</td>
</tr>
</tbody>
</table>

Engineering measures: Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection: No special protective equipment required.

Hand protection: No special protective equipment required.

Skin protection: No special protective equipment required.

Respiratory protection: No personal respiratory protective equipment normally required.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling.

Product AT USE DILUTION
Engineering measures: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection: No special protective equipment required.

Hand protection: No special protective equipment required.

Skin protection: No special protective equipment required.
Respiratory protection: No personal respiratory protective equipment normally required.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Product AS SOLD</th>
<th>Product AT USE DILUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>clear, blue</td>
<td>colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>Floral</td>
<td>Floral</td>
</tr>
<tr>
<td>pH</td>
<td>6.0 - 9.0, 100 %</td>
<td>8.0</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable, Does not sustain combustion.</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>&gt; 100 °C</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.04 - 1.06</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>The substance or mixture is not classified as oxidizing.</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 10. STABILITY AND REACTIVITY**

Product AS SOLD

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.

Conditions to avoid: None known.

Incompatible materials: None known.
Hazardous decomposition products: Decomposition products may include the following materials:
- Carbon oxides
- Nitrogen oxides (NOx)
- Sulfur oxides
- Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure: Inhalation, Eye contact, Skin contact

Potential Health Effects

Product AS SOLD

Eyes: Causes eye irritation.

Skin: Health injuries are not known or expected under normal use.

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

Chronic Exposure: Suspected of causing cancer.

Product AT USE DILUTION

Eyes: Health injuries are not known or expected under normal use.

Skin: Health injuries are not known or expected under normal use.

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

Chronic Exposure: Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

Eye contact: Redness, Irritation

Skin contact: No symptoms known or expected.

Ingestion: No symptoms known or expected.

Inhalation: No symptoms known or expected.

Product AT USE DILUTION

Eye contact: No symptoms known or expected.

Skin contact: No symptoms known or expected.

Ingestion: No symptoms known or expected.

Inhalation: No symptoms known or expected.

Toxicity

Product AS SOLD

Acute oral toxicity: Acute toxicity estimate: > 5,000 mg/kg
Acute inhalation toxicity : No data available
Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Skin corrosion/irritation : Mild skin irritation
Serious eye damage/eye irritation : Mild eye irritation
  Method: OECD Test Guideline 437
  Test substance: Product
Respiratory or skin sensitization : No data available
Carcinogenicity
  IARC
  Group 2B: Possibly carcinogenic to humans
  amides, coco, n,n-bis(hydroxyethyl)  68603-42-9
  2,2’-iminodiethanol  111-42-2
OSHA
  No ingredient 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 ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive effects : No data available
Germ cell mutagenicity : No data available
Teratogenicity : No data available
STOT-single exposure : No data available
STOT-repeated exposure : No data available
Aspiration toxicity : No data available
Ingredients
Acute inhalation toxicity : ethanol
  4 h LC50 Rat: 117 mg/l
  Propylene glycol
  4 h LC50 Rat: > 158.5 mg/l

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD
Ecotoxicity
Environmental Effects : Toxic to aquatic life.

Product
Toxicity to fish : No data available
Toxicity to daphnia and other aquatic invertebrates : No data available
Toxicity to algae : No data available

Ingredients
Toxicity to fish : Secondary Alkanesulphonates
  96 h LC50 Fish: 4.2 mg/l
  amides, coco, n,n-bis(hydroxyethyl)
  96 h LC50 Fish: 3.6 mg/l
Sodium poly(oxyethylene) dodecyl ether sulfate
96 h LC50 Fish: 28 mg/l

ethanol
96 h LC50 Fish: 11,000 mg/l

Propylene glycol
96 h LC50: > 10,000 mg/l

Ingredients
Toxicity to daphnia and other aquatic invertebrates: Propylene glycol
48 h EC50: 18,340 mg/l

2,2’-iminodiethanol
48 h EC50 Daphnia: 65.5 mg/l

Ingredients
Toxicity to algae: Sodium Xylenesulfonate
96 h EC50: 230 mg/l

Propylene glycol
96 h EC50: 19,000 mg/l

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Product AS SOLD
Disposal methods: The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

Product AT USE DILUTION
Disposal methods: Diluted product can be flushed to sanitary sewer.

Disposal considerations: Dispose of in accordance with local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION
SAFETY DATA SHEET

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Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)
Not dangerous goods

Sea transport (IMDG/IMO)
Not dangerous goods

Product AT USE DILUTION
Not intended for transport.

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2’-iminodiethanol</td>
<td>111-42-2</td>
<td>100</td>
<td>11692</td>
</tr>
</tbody>
</table>

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

SARA 311/312 Hazards
: Chronic Health Hazard
  Acute Health Hazard

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

SARA 313
: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65
WARNING! This product contains a chemical known in the State of California to cause cancer.

amides, coco, n,n-bis(hydroxyethyl) 68603-42-9
2,2’-iminodiethanol 111-42-2

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

United States TSCA Inventory
: On TSCA Inventory

Canadian Domestic Substances List (DSL)
: All components of this product are on the Canadian DSL.

Australia Inventory of Chemical Substances (AICS)
: On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemical Substances
: On the inventory, or in compliance with the inventory
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Japan. ENCS - Existing and New Chemical Substances Inventory :
not determined

Japan. ISHL - Inventory of Chemical Substances (METI) :
not determined

Korea. Korean Existing Chemicals Inventory (KECI) :
On the inventory, or in compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances in China (IECSC) :
On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Product AS SOLD
NFPA:

Flammability
Health
0
Instability
1
0

Health
0

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

HMIS III:

HEALTH
1*

FLAMMABILITY
0

PHYSICAL HAZARD
0

Product AT USE DILUTION
NFPA:

Flammability
Health
0
Instability
0
0

Health
0

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

HMIS III:

HEALTH
0

FLAMMABILITY
0

PHYSICAL HAZARD
0

Issuing date : 05/11/2015
Version : 1.0
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material 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
SAFETY DATA SHEET

QSR MULTI-PURPOSE SINK DETERGENT

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.