



Safety Data Sheet

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|------------------------|-----------|-------------------------|---------------|
| Document Group: | 38-8869-0 | Version Number: | 1.00 |
| Issue Date: | 02/13/18 | Supersedes Date: | Initial Issue |

Product identifier

3M™ Bovine Total Milk Protein Rapid Kit

ID Number(s):

70-2011-7553-9

Recommended use

Screening for the presence of allergens in the food and beverage industry.

Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Food Safety Department |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

38-5690-3

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Document Group: 38-5690-3
Issue Date: 08/03/18

Version Number: 2.00
Supersedes Date: 11/28/17

SECTION 1: Identification

1.1. Product identifier

3M Extraction Buffer

1.2. Recommended use and restrictions on use

Recommended use

For screening the presence of allergen proteins in the Food and Beverage industry, Industrial use

1.3. Supplier's details

MANUFACTURER: 3M
DIVISION: Food Safety Department
ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA
Telephone: 1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2A.

2.2. Label elements

Signal word

Warning

Symbols

Exclamation mark |

Pictograms



Hazard Statements

Causes serious eye irritation.

Precautionary Statements**Prevention:**

Wear eye/face protection.
Wash thoroughly after handling.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

2% of the mixture consists of ingredients of unknown acute oral toxicity.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|-------------------|-------------------|-----------------------|
| Water | 7732-18-5 | 50 - 99 |
| Ethyl Alcohol | 64-17-5 | 0 - 15 Trade Secret * |
| GLYCEROL | 56-81-5 | 0 - 15 |
| UREA | 57-13-6 | 0 - 15 Trade Secret * |
| GELATIN | 9000-70-8 | 0 - 2 |
| SODIUM CHLORIDE | 7647-14-5 | 0 - 2 |

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

No need for first aid is anticipated. If signs/symptoms persist, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Avoid eye contact. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
|---------------|------------|--------|--|------------------------------|
| GLYCEROL | 56-81-5 | OSHA | TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3 | |
| UREA | 57-13-6 | AIHA | TWA(as total particulates):10 mg/m3 | |
| Ethyl Alcohol | 64-17-5 | ACGIH | STEL:1000 ppm | A3: Confirmed animal carcin. |
| Ethyl Alcohol | 64-17-5 | OSHA | TWA:1900 mg/m3(1000 ppm) | |

ACGIH : American Conference of Governmental Industrial Hygienists
 AIHA : American Industrial Hygiene Association
 CMRG : Chemical Manufacturer's Recommended Guidelines
 OSHA : United States Department of Labor - Occupational Safety and Health Administration
 TWA: Time-Weighted-Average
 STEL: Short Term Exposure Limit
 CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
 Indirect Vented Goggles

Skin/hand protection

No chemical protective gloves are required.

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
 Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates
 Organic vapor respirators may have short service life.

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|--|
| General Physical Form: | Liquid |
| Odor, Color, Grade: | clear liquid |
| Odor threshold | No Data Available |
| pH | No Data Available |
| Melting point | No Data Available |
| Boiling Point | No Data Available |
| Flash Point | Flash point > 93 °C (200 °F) [Test Method: Closed Cup] |
| Evaporation rate | No Data Available |
| Flammability (solid, gas) | Not Applicable |
| Flammable Limits(LEL) | No Data Available |
| Flammable Limits(UEL) | No Data Available |
| Vapor Pressure | No Data Available |
| Vapor Density | No Data Available |
| Density | No Data Available |
| Specific Gravity | 1.04 [Ref Std: WATER=1] |
| Solubility in Water | Soluble |
| Solubility- non-water | Complete |
| Partition coefficient: n-octanol/ water | No Data Available |

| | |
|---------------------------|-------------------|
| Autoignition temperature | No Data Available |
| Decomposition temperature | No Data Available |
| Viscosity | No Data Available |
| Molecular weight | Not Applicable |
| Percent volatile | No Data Available |

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| None known. | |

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:

Contact with the skin during product use is not expected to result in significant irritation.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Additional Information:

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

| Name | Route | Species | Value |
|-----------------|--------------------------------|---------|--|
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Ethyl Alcohol | Dermal | Rabbit | LD50 > 15,800 mg/kg |
| Ethyl Alcohol | Inhalation-Vapor (4 hours) | Rat | LC50 124.7 mg/l |
| Ethyl Alcohol | Ingestion | Rat | LD50 17,800 mg/kg |
| GLYCEROL | Dermal | Rabbit | LD50 estimated to be > 5,000 mg/kg |
| GLYCEROL | Ingestion | Rat | LD50 > 5,000 mg/kg |
| UREA | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| UREA | Ingestion | Rat | LD50 14,300 mg/kg |
| SODIUM CHLORIDE | Dermal | Rabbit | LD50 > 10,000 mg/kg |
| SODIUM CHLORIDE | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 10.5 mg/l |
| SODIUM CHLORIDE | Ingestion | Rat | LD50 3,550 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|-----------------|---------|---------------------------|
| Ethyl Alcohol | Rabbit | No significant irritation |
| GLYCEROL | Rabbit | No significant irritation |
| UREA | Rabbit | No significant irritation |
| SODIUM CHLORIDE | Rabbit | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|-----------------|---------|---------------------------|
| Ethyl Alcohol | Rabbit | Severe irritant |
| GLYCEROL | Rabbit | No significant irritation |
| UREA | Rabbit | Moderate irritant |
| SODIUM CHLORIDE | Rabbit | Mild irritant |

Skin Sensitization

| Name | Species | Value |
|---------------|------------|----------------|
| Ethyl Alcohol | Human | Not classified |
| GLYCEROL | Guinea pig | Not classified |

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

| Name | Route | Value |
|------|-------|-------|
|------|-------|-------|

| | | |
|-----------------|----------|--|
| Ethyl Alcohol | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Ethyl Alcohol | In vivo | Some positive data exist, but the data are not sufficient for classification |
| UREA | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| UREA | In vivo | Some positive data exist, but the data are not sufficient for classification |
| SODIUM CHLORIDE | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| SODIUM CHLORIDE | In vivo | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

| Name | Route | Species | Value |
|-----------------|-----------|-------------------------|--|
| Ethyl Alcohol | Ingestion | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| GLYCEROL | Ingestion | Mouse | Some positive data exist, but the data are not sufficient for classification |
| UREA | Ingestion | Multiple animal species | Not carcinogenic |
| SODIUM CHLORIDE | Ingestion | Rat | Not carcinogenic |

Reproductive Toxicity**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test Result | Exposure Duration |
|---------------|------------|--|---------|-----------------------|--------------------------------|
| Ethyl Alcohol | Inhalation | Not classified for development | Rat | NOAEL 38 mg/l | during gestation |
| Ethyl Alcohol | Ingestion | Not classified for development | Rat | NOAEL 5,200 mg/kg/day | prematuring & during gestation |
| GLYCEROL | Ingestion | Not classified for female reproduction | Rat | NOAEL 2,000 mg/kg/day | 2 generation |
| GLYCEROL | Ingestion | Not classified for male reproduction | Rat | NOAEL 2,000 mg/kg/day | 2 generation |
| GLYCEROL | Ingestion | Not classified for development | Rat | NOAEL 2,000 mg/kg/day | 2 generation |

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---------------|------------|-----------------------------------|--|-------------------------|---------------------|-------------------|
| Ethyl Alcohol | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | LOAEL 2.6 mg/l | 30 minutes |
| Ethyl Alcohol | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | LOAEL 9.4 mg/l | not available |
| Ethyl Alcohol | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Multiple animal species | NOAEL not available | |
| Ethyl Alcohol | Ingestion | kidney and/or bladder | Not classified | Dog | NOAEL 3,000 mg/kg | |
| UREA | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Professional judgement | NOAEL Not available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|-----------------|------------|--|--|---------|------------------------|-------------------|
| Ethyl Alcohol | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Rabbit | LOAEL 124 mg/l | 365 days |
| Ethyl Alcohol | Inhalation | hematopoietic system immune system | Not classified | Rat | NOAEL 25 mg/l | 14 days |
| Ethyl Alcohol | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 8,000 mg/kg/day | 4 months |
| Ethyl Alcohol | Ingestion | kidney and/or bladder | Not classified | Dog | NOAEL 3,000 mg/kg/day | 7 days |
| GLYCEROL | Inhalation | respiratory system heart liver kidney and/or bladder | Not classified | Rat | NOAEL 3.91 mg/l | 14 days |
| GLYCEROL | Ingestion | endocrine system hematopoietic system liver kidney and/or bladder | Not classified | Rat | NOAEL 10,000 mg/kg/day | 2 years |
| UREA | Dermal | heart endocrine system hematopoietic system liver immune system nervous system kidney and/or bladder | Not classified | Rat | NOAEL Not available | 25 weeks |
| UREA | Ingestion | liver endocrine system kidney and/or bladder | Not classified | Rat | NOAEL 2,700 mg/kg/day | 28 days |
| SODIUM CHLORIDE | Ingestion | blood kidney and/or bladder vascular system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 2,240 mg/kg/day | 9 months |
| SODIUM CHLORIDE | Ingestion | nervous system eyes | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1,700 mg/kg/day | 90 days |
| SODIUM CHLORIDE | Ingestion | liver respiratory system | Not classified | Rat | NOAEL 33 mg/kg/day | 90 days |

Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information**Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations**13.1. Disposal methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards

Serious eye damage or eye irritation

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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