APEX FLAVORS, INC.

SAFETY DATA SHEET.



Version 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Number 058

Manufacturer Apex Flavors, Inc.

1371 Brass Mill Rd.

Suite A

Belcamp, MD 21017 (410) 565-6600

Product name BUTTER TYPE, NATURAL FLAVOR BLEND

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use No information available

1.3. Details of the supplier of the safety data sheet

For further information, please contact:

E-mail Address cpisano@apexflavors.com

1.4. Emergency telephone number

Emergency telephone Chemtrec: 1-800-424-9300 for US/ 703-527-3887 outside US

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Flammable liquids Category 4

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases mentioned in this Section, see Section 16

2.2. Label elements

Signal Word

Warning

H227 - Combustible liquid

Precautionary Statements

P403 + P235 - Store in a well-ventilated place. Keep cool

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P280 - Wear protective gloves/ eye protection/ face protection

2.3. Other information

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

| Chemical Name | EC-No | CAS-No | Alternate CAS # | Weight % | Classificatio n according to Directive 67/548/EEC or 1999/45/EC | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH Registration Number |
|---------------------|-----------|---------|--------------------|----------|--|--|---------------------------------|
| PROPYLENE GLYCOL | 200-338-0 | 57-55-6 | | 30-50% | - | No data available | No data available |

For the full text of the R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Inhalation Move to fresh air.

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

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

Note to physicians Treat symptomatically

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Extinguishing media which shall not be used for safety reasons

No information available

5.2. Special hazards arising from the substance or mixture

Special Hazard

None

5.3. Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

See Section 12 for additional Ecological Information

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Ensure adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

Exposure scenario N/A

Other Guidelines N/A

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies

| Chemical Name | European Union | The United Kingdom | France | Spain | Germany |
|------------------|----------------|---------------------------------|--------|-------|---------|
| PROPYLENE GLYCOL | | STEL: 450 ppm STEL: | | | |
| 57-55-6 | | 1422 mg/m ³ STEL: 30 | | | |
| | | mg/m³ | | | |
| | | TWA: 150 ppm TWA: | | | |
| | | 474 mg/m ³ TWA: 10 | | | |
| | | mg/m³ | | | |

| Chemical Name | Austria | Sweden - Occupational Exposure Limits - TLVs (LLVs) | Switzerland | Poland | Norway |
|-----------------------------|---------|--|-------------|--------|---|
| PROPYLENE GLYCOL 57-55-6 | | | | | TWA: 25 ppm TWA: 79 mg/m³ STEL: 37.5 ppm STEL: 118.5 mg/m³ |

| Component | Ireland | | |
|--------------------|---|--|--|
| PROPYLENE GLYCOL | TWA: 150 ppm TWA: 470 mg/m³ TWA: 10 mg/m³ | | |
| 57-55-6 (30-50%) | | | |

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration No information available

(PNEC)

8.2. Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Eye Protection Tightly fitting safety goggles

Hand Protection Protective gloves
Skin and body protection Long sleeved clothing

Respiratory protection When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state liquid Appearance clear

Odor Buttery Color colorless to slightly yellow

<u>Property</u> <u>Values</u> <u>Method</u>

pH No information available

Melting/freezing point

No information available

Boiling point/boiling range

FCC Method

Flash Point 93 °C / 200 °F Closed cup Evaporation rate FCC Method

Flammability (solid, gas)

Flammability Limits in Air

No information available
No information available

Upper flammability limit lower flammability limit

Vapor pressure mm Hg 20°C

Vapor density

No information available
No information available

Relative density

Specific Gravity @ 25C

1.0155 - 1.0455

No information available
FCC Method

 Specific Gravity @ 20C
 1.0185 - 1.0485
 FCC Method

 Refractive Index
 1.3618 - 1.3918
 FCC Method

Water solubility
Partition coefficient: n-octanol/water
Autoignition temperature

No information available
No information available

Decomposition temperatureNo information availableViscosity, dynamicNo information available

Explosive properties No information available Oxidizing Properties No information available

9.2. Other information

VOC Content(%) 36.1800000071526
Molecular Weight No information available

10. STABILITY AND REACTIVITY

10.1. Reactivity

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Heat, flames and sparks

10.5. Incompatible materials

No materials to be especially mentioned

10.6. Hazardous decomposition products

None under normal use conditions

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Inhalation There is no data available for this product

There is no data available for this product Eye contact

Skin contact There is no data available for this product

Ingestion There is no data available for this product

60.87% of the mixture consists of ingredient(s) of unknown toxicity **Acute toxicity**

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 1, 2005):

Oral 16,469.00 mg/kg 16,963.00 mg/kg **Dermal**

| | Chemical Name | Oral LD50 | Dermal LD50 | LC50 Inhalation |
|---|------------------|-------------------|------------------------|-----------------|
| Ī | PROPYLENE GLYCOL | 20000 mg/kg (Rat) | 20800 mg/kg (Rabbit) | |

Skin corrosion/irritation Eye damage/irritation Sensitization

No information available No information available No information available **Germ Cell Mutagenicity** Carcinogenicity No information available

Specific target organ systemic toxicity (single exposure)

No information available

No information available

Specific target organ systemic toxicity (repeated exposure)

No information available

Target Organ Effects No information available **Aspiration hazard** No information available

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Contains no substances known to be hazardous to the environment or not degradable in

waste water treatment plants

| Chemical Name | Toxicity to algae | Toxicity to fish | Toxicity to daphnia and other |
|------------------|-------------------|--|-------------------------------|
| | | | aquatic invertebrates |
| PROPYLENE GLYCOL | | 51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 | |
| | | h Pimephales promelas mg/L LC50 | |

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused

products

Dispose of in accordance with local regulations

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or

disposal

14. TRANSPORT INFORMATION

DOTNot regulatedIMDG / IMONot regulatedICAO/IATANot regulated

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

WGK Classification

| Chemical Name | Germany - Water Classification (VwVwS) - Annex 2 - Water | | |
|------------------|--|--|--|
| | Hazard Classes | | |
| PROPYLENE GLYCOL | Hazard Class 1 | | |
| 57-55-6 | | | |

International Inventories

Revision Date 05-Nov-2015

All of the components in the product are on the following Inventory lists: United States of America (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (ECL), China (IECSC), Japan (ENCS), Philippines (PICCS).

Complies **TSCA EINECS/ELINCS** Complies DSL/NDSL Complies Complies **PICCS** Complies **ENCS** Complies **IECSC AICS** Complies **KECL** Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical safety assessment

16. OTHER INFORMATION

Revision Date 05-Nov-2015

Revision Note Not applicable.

Revision#

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

WARNING/DISCLAIMER:

Apex Flavors, Inc.'s products are sold exclusively for use in food and drink for human consumption. These products have not been tested, nor have they been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, and electronic cigarettes or similar devices (collectively "E-Cigarettes"). In supplying this product(s), Apex Flavors, Inc. instructs, and purchasing recipient confirms, that this product(s) will not be used in connection with the manufacture and distribution of E-Cigarettes or any component thereof. Recipients of our products that use them outside of their intended use of food or drink do so at their own risk and without warranty, either expressed or implied, from Apex Flavors, Inc. or its suppliers. The user assumes all liability for loss, injury, damage, or expense resulting from such uses.

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