DOC ID: 41182.625405.11476374

Product:Tuberose I-44 RevisionProduct#:5156364SKU#:tub

Page 1 of 8 2014-01-29

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade Name: Tuberose I-44 Revision

Product/Sales No: 5156364

1.2 Relevant indentified product use

Intended use: Compound used in customer substance/mixture/product

1.3 Details of the manufacturer/supplier of the saftey data sheet

Wellington Fragrance 33306 Glendale St. Livonia, MI 48150 USA 734-261-5531 Fax 734-261-5571 wellingtonfragrance.com

1.4 Emergency telephone number

(800) 255-3924 Domestic USA, Canada, Puerto Rico, and US Virgin Islands

+1 813 248-0585 International (CHEMTEL #MIS 0000533)

2. Hazards Identification

2.1 Classification of the substance or mixture

This mixture has not been tested as a whole. The effects, listed below, are based on evaluation of individual components in accordance with the provisions of the regulation(s) noted below.

Classification according to GHS Regulation (EC) No 1272/2008

| Aquatic Acute Toxicity, Category | 2 | : | |
|---|--|--|--|
| Acute Toxicity Oral, Category 5 | | H303: May be harmful if swallowed | |
| Acute Toxicity Dermal, Category | 5 | H313: May be harmful in contact with skin | |
| Skin Corrosion/Irritation, Catego | 'y 2 | H315: Causes skin irritation | |
| Sensitization, Skin, Category 1B | | H317: May cause an allergic skin reaction | |
| Eye Damage/Eye Irritation, Cate | gory 2A | H319: Causes serious eye irritation | |
| Acute Toxicity Inhalation, Catego | ory 5 | H333: May be harmful if inhaled | |
| Carcinogenicity, Category 1B | | H350: May cause cancer | |
| Aquatic Chronic Toxicity, Category 2 | | H411: Toxic to aquatic life with long lasting effects | |
| Classification OSHA (Provisions 19 | 10.1200 of title | 29) | |
| Flammability | Class IIIB Combustible Liquid | | |
| Acute Dermal/Eye | 12 : Causes moderate skin irritation. | | |
| | 15 : May cause | eye irritation. | |
| Acute Inhalation | 23 : May cause | respiratory tract irritation. | |
| | 25 : Inhalation a lethargy, ataxia | at high levels may cause: tremors, labored breathing, hypothermia, | |
| Acute Oral | 3 : May be harmful if swallowed . | | |
| | 4 : Harmful if swallowed, can enter lungs and cause damage | | |
| Genotoxicity | 36 : Suspected of causing genetic defects | | |
| Reproductive/Developmental | 39 : Causes reproductive/developmental toxicity in animals. | | |
| Sensitization/Allergic Response | 31 : May cause allergic skin reaction. | | |
| Target Organ Effects | 26 : Prolonged or repeated ingestion may cause damage to: kidneys, liver, stomach, brain, tongue, mucous membranes, musculo-skeletal system. | | |

DOC ID: 41182.625405.11476374

| Product: | Tuberose I-44 Revision |
|-----------|-------------------------------|
| Product#: | 5156364 |
| SKU#: | tub |

Page 2 of 8 2014-01-29

Carcinogenicity

28 : Prolonged or repeated Dermal Exposure may cause damage to: kidneys, skin This mixture contains ingredients identified as carcinogens, at 0.1% or greater, by the following:None [X] ACGIH [] IARC [] NTP [] OSHA []

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



Signal Word: Danger, Warning

Hazard statments

| H303 | May be harmful if swallowed |
|-------|---|
| 11303 | May be harmful if Swallowed |
| H313 | May be harmful in contact with skin |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation |
| H333 | May be harmful if inhaled |
| H350 | May cause cancer |
| H411 | Toxic to aquatic life with long lasting effects |

Precautionary Statements

Prevention:

| P201 | Obtain special instructions before use |
|--------------------|--|
| P202 | Do not handle until all safety precautions have been read and understood |
| P264 | Wash hands thoroughly after handling |
| P272 | Contaminated work clothing should not be allowed out of the workplace |
| P273 | Avoid release to the environment |
| P281 | Use personal protective equipment as required |
| Response: | |
| P302 + P352 | IF ON SKIN: Wash with soap and water |
| P304 + P312 | IF INHALED: 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 |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell |
| P333 + P313 | If skin irritation or a rash occurs: Get medical advice/attention |
| P337 + P313 | If eye irritation persists: Get medical advice/attention |
| P362 | Take off contaminated clothing and wash before reuse |
| P363 | Wash contaminated clothing before reuse |
| P391 | Collect Spillage |
| | |

2.3 Other Hazards

no data available

DOC ID: 41182.625405.11476374

Product:Tuberose I-44 RevisionProduct#:5156364SKU#:tub

Page 3 of 8 2014-01-29

3. Composition/Information on Ingredients

3.1 Mixtures

This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS):

| CAS# Ingredient | EC# | Conc. Range | GHS Classification | OSHA Classification |
|--------------------|----------------------------|----------------|------------------------------|---------------------|
| 120-51-4 | 204-402-9 | 20 - 30 % | H302; H313; H411 | 28, 3 |
| Benzyl Be | enzoate | | | |
| 122-40-7 | 204-541-5 | 10 - 20 % | H303; H316; H317; H411 | 11, 15 |
| Amyl Cinr | namal | | | |
| 115-95-7 | 204-116-4 | 5 - 10 % | H227; H315; H319 | |
| Linalyl ace | | | | |
| 104-61-0 | 203-219-1 | 5 - 10 % | H316 | 12, 15 |
| - | lonalactone | | | |
| 78-70-6 | 201-134-4 | 5 - 10 % | H227; H303; H315; H319 | 12, 26 |
| Linalool | | | | |
| 140-11-4 | 205-399-7 | 5 - 10 % | H227; H303; H316 | 15, 25, 26, 31, 39 |
| Benzyl ac | | F 40.0/ | | 4.4 |
| 104-67-6 | 203-225-4 | 5 - 10 % | H316; H412 | 11 |
| 98-55-5 | Indecalactone 202-680-6 | 5 - 10 % | H227; H303; H315; H319 | 11, 15, 23 |
| alpha-Ter | | 5-10 % | 1227, 11303, 11313, 11319 | 11, 15, 25 |
| 134-20-3 | 205-132-4 | 5 - 10 % | H303; H316; H319 | 11, 15 |
| Methyl an | | 0 10 /0 | | 11, 10 |
| 93-92-5 | 202-288-5 | 2 - 5 % | H227 | |
| | nzyl acetate | 2 0 /0 | | |
| 89-43-0 | 201-908-1 | 2 - 5 % | H316 | |
| Hydroxyci | itronellal-methyl a | | | |
| 118-58-1 | 204-262-9 | 2 - 5 % | H303; H317; H320; H412 | 31 |
| Benzyl Sa | alicylate | | | |
| 106-24-1 | 203-377-1 | 2 - 5 % | H303; H315 | 11, 15, 31 |
| Geraniol | | | | |
| 107-75-5 | 203-518-7 | 2 - 5 % | H317; H319 | 11, 15, 31 |
| Hydroxyci | itronellal | | | |
| 106-22-9 | 203-375-0 | 1 - 2 % | H303; H313; H315; H317; H319 | 11, 15 |
| Citronello | | | | |
| 60-12-8 | 200-456-2 | 1 - 2 % | H302; H313; H316; H319 | 11, 15, 3 |
| phenethyl | | | | |
| 122-63-4 | 204-559-3 | 1 - 2 % | H303 | 11 |
| Benzyl pro | • | 4 0 0′ | | 45 |
| 106-25-2 | 203-378-7 | 1 - 2 % | H303; H315; H317; H319 | 15 |
| Nerol | | | | |

SDS Type: GHS / OSHA

DOC ID: 41182.625405.11476374

| Product: | Tuberose I-44 Revision |
|-----------|------------------------|
| Product#: | 5156364 |
| SKU#: | tub |

Page 4 of 8 2014-01-29

| CAS# Ingredient | EC# | Conc. Range | GHS Classification | OSHA Classification |
|--|------------------|----------------|-------------------------------------|---------------------|
| 8000-34-8 | 284-638-7 | 1 - 2 % | H303; H304; H313; H316; H319 | 12, 31, 36, 4 |
| Eugenia d | aryophyllus (Clo | ove) leaf oil | | |
| 81-14-1 | 201-328-9 | 0.1 - 1.0 % | H316; H351; H410 | 11, 15 |
| Musk keta | one | | | |
| 8015-91-6 | 283-479-0 | 0.1 - 1.0 % | H227; H303; H313; H316; H319; H341; | 11, 15, 31 |
| Cinnamomum Zeylanicum (Cinnamon Leaf On%59xt ^{H412} | | | | |
| See Section 16 for full text of GHS classification codes | | | | |

Total Hydrocarbon Content (% w/w) = 0.00

| 4. First Aid Measures | | |
|--|--|--|
| 4.1 Description of first aid measures | | |
| Inhalation: | Remove from exposure site to fresh air and keep at rest. Obtain medical advice. | |
| Eye Exposure: | Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist. | |
| Skin Exposure: | Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist. | |
| Ingestion: | Rinse mouth with water and obtain medical advice. | |
| 4.2 Most important symptoms and effects, | both acute and delayed | |
| Symptoms: | no data available | |
| Risks: | Refer to Section 2.2 "Hazard Statements" | |
| 4.3 Indication of any immediate medical at | tention and special treatment needed | |
| Treatment: | Refer to Section 2.2 "Response" | |
| | | |
| 5. Fire-Fighting measures | | |
| 5.1 Extinguishing media | | |
| Suitable: | Carbon dioxide (CO2), Dry chemical, Foam | |
| Unsuitable | Do not use a direct water jet on burning material | |
| 5.2 Special hazards arising from the substa | ance or mixture | |
| During fire fighting: 5.3 Advice for firefighters | Water may be ineffective | |
| Further information: | Standard procedure for chemical fires | |

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.

6.2 Environmental precautions

Keep away from drains, soil, and surface and groundwater.

DOC ID: 41182.625405.11476374

Product:Tuberose I-44 RevisionProduct#:5156364SKU#:tub

Page 5 of 8 2014-01-29

6.3 Methods and materials for containment and cleaning up

Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapors. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

6.4 Reference to other sections

Not Applicable

7. Handling and Storage

7.1 Precautions for safe handling

Apply according to good manufacturing and industrial hygiene practices with proper ventilation. Do not drink, eat or smoke while handling. Respect good personal hygiene.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry and ventilated area away from heat sources and protected from light in tightly closed original container. Avoid plastic and uncoated metal container. Keep air contact to a minimum.

7.3 Specific end uses

No information available

8. Exposure Controls/Personal Protection

8.1 Control parameters

| Exposure Limits: | | | | | |
|-----------------------|---|------------------|-------------|--------------|------------------------|
| Component | | ACGIH | ACGIH | OSHA | OSHA |
| | | TWA ppm | STEL ppm | TWA ppm | STEL ppm |
| 140-11-4 Ben | zyl acetate | 10 | | | |
| Engineering Contro | bls: Use local exhaust as needed. | | | | |
| 8.2 Exposure controls | Personal protective equipment | | | | |
| Eye protection: | Tightly sealed goggles, face shield, as may be appropriate for the expose | | es with bro | w guards | and side shields, etc. |
| Respiratory protect | tion: Avoid excessive inhalation of conce | ntrated vapors. | Apply loca | al ventilati | on where appropriate. |
| Skin protection: | Avoid Skin contact. Use chemically | resistant gloves | as neede | ed. | |

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| Appearance: | Conforms to Standard |
|--------------------|--------------------------------|
| Odor: | Conforms to Standard |
| Color: | Pale Yellow to Greenish Yellow |
| Viscosity: | Liquid |
| Freezing Point: | Not determined |
| Boiling Point: | Not determined |
| Melting Point: | Not determined |
| Flashpoint: | >200 F (93.33 C) |
| Auto flammability: | Not determined |

DOC ID: 41182.625405.11476374

| Product: | Tuberose I-44 Revision |
|-----------|-------------------------------|
| Product#: | 5156364 |
| SKU#: | tub |

Page 6 of 8 2014-01-29

| Explosive Properties: | None Expected |
|-----------------------------|---------------|
| Oxidizing properties: | None Expected |
| Vapor Pressure (mmHg@20 C): | 0.0255 |
| %VOC: | 6 |
| Specific Gravity @ 25 C: | 1.0010 |
| Density @ 25 C: | 0.9980 |
| Refractive Index @ 25 C: | 1.5090 |
| Soluble in: | Oil |
| | |

10. Stability and Reactivity

| 10.1 Reactivity | None |
|---|--|
| 10.2 Chemical stability | Stable |
| 10.3 Possibility of hazardous reactions | None known |
| 10.4 Conditions to avoid | None known |
| 10.5 Incompatible materials | Strong oxidizing agents, strong acids, and alkalis |
| 10.6 Hazardous decomposition products | None known |

11. Toxicological Information

| 11.1 Toxicological Effects | |
|--|--|
| Acute toxicity - Oral | (LD50: 2,988.51) May be harmful if swallowed |
| Acute toxicity - Dermal | (LD50: 3,488.56) May be harmful in contact with skin |
| Acute toxicity - Inhalation | (LC50: 39.18) May be harmful if inhaled |
| Skin corrosion / irritation | Causes skin irritation |
| Serious eye damage / irritation | Causes serious eye irritation |
| Respiratory sensitization | Not classified - the classification criteria are not met |
| Skin sensitization | May cause an allergic skin reaction |
| Germ cell mutagenicity | Not classified - the classification criteria are not met |
| Carcinogenicity | May cause cancer |
| Reproductive toxicity | Not classified - the classification criteria are not met |
| Specific target organ toxicity - single exposure | Not classified - the classification criteria are not met |
| Specific target organ toxicity - repeated exposure | Not classified - the classification criteria are not met |
| Aspiration hazard | Not classified - the classification criteria are not met |

12. Ecological Information

12.1 Toxicity

Acute acquatic toxicity Chronic acquatic toxicity Toxicity Data on soil

Toxic to aquatic life with long lasting effects no data available

DOC ID: 41182.625405.11476374

| Product: | Tuberose I-44 Revision |
|-----------|-------------------------------|
| Product#: | 5156364 |
| SKU#: | tub |

Page 7 of 8 2014-01-29

| Toxicity on other organisms | no data available | |
|------------------------------------|-------------------|--|
| 12.2 Persistence and degradability | no data available | |
| 12.3 Bioaccumulative potential | no data available | |
| 12.4 Mobility in soil | no data available | |
| 12.5 Other adverse effects | no data available | |

13. Disposal Conditions

13.1 Waste treatment methods

Do not allow product to reach sewage systems. Dispose of in accordance with all local and national regulations. Send to a licensed waste management company. The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container.

14. Transport Information

| Regulator U.S. DOT (Non-Bulk) Chemicals NOI | | Class Not Regulated | Pack Group - Not Dangerous | Sub Risk Goods | UN-nr. | |
|--|--------------|------------------------|-------------------------------|----------------------|--------|--|
| ADR/RID (International Road/Rail) | | | | | | |
| Environmentally Hazardous Liquid, n.o.s. IATA (Air Cargo) | Substance, | 9 | 111 | | UN3082 | |
| Environmentally Hazardous Liquid, n.o.s. IMDG (Sea) | Substance, | 9 | 111 | | UN3082 | |
| Environmentally Hazardous Liquid, n.o.s. | Substance, | 9 | III | | UN3082 | |
| 15. Regulatory Inf | ormation | | | | | |
| U.S. Federal Regulations: | | | | | | |
| TSCA (Toxic Substance Control Act): All components of the substance/mixture are listed or exempt | | | | | exempt | |
| 40 CFR(EPCRA, SARA, CERCLA and CAA) This product contains NO components of concern. | | | | | | |
| U.S. State Regulations: | | | | | | |
| California Proposition 65 | Warning | This produ | ct contains the fo | bllowing components: | | |
| 94-59-7 202-345 | -4 <= 30 ppm | Safrole (NFS) |) | | | |
| 93-15-2 202-223 | -0 <= 13 ppm | Methyl eugen | ol (NFS) | | | |
| Canadian Regulations: | | | | | | |

SDS Type: GHS / OSHA

DOC ID: 41182.625405.11476374

Product: **Tuberose I-44 Revision** Product#: **5156364**

SKU#: tub

Page 8 of 8 2014-01-29

16. Other Information

GHS H-Statements referred to under section 3

- H227 : Combustible liquid
- H303 : May be harmful if swallowed
- H313 : May be harmful in contact with skin
- H316 : Causes mild skin irritation
- H319 : Causes serious eye irritation
- H341 : Suspected of causing genetic defects
- H351 : Suspected of causing cancer
- H411 : Toxic to aquatic life with long lasting effects

Total Fractional Values

(TFV) Risk
(12.39) Aquatic Acute Toxicity, Category 2
(11.00) Sensitization, Skin, Category 1B
(2.50) Carcinogenicity, Category 1B

Department issuing data sheet:

Department E-mail address:

Remarks

This safety data sheet is based on the properties of the material known to Wellington Fragrance at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. For such a safety assessment Welling holds no responsibility. This document is not intended for quality assurance purposes.

- H302 : Harmful if swallowed
 H304 : May be fatal if swallowed and enters airways
 H315 : Causes skin irritation
 H317 : May cause an allergic skin reaction
 H320 : Causes eye irritation
 H350 : May cause cancer
 H410 : Very toxic to aquatic life with long lasting effects
 H412 : Harmful to aquatic life with long lasting effects
- (TFV) Risk
- (2.70) Skin Corrosion/Irritation, Category 2
- (6.65) Eye Damage/Eye Irritation, Category 2A
- (1.85) Aquatic Chronic Toxicity, Category 2