Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (as amended)

This Safety Data Sheet cancels and replaces all preceding SDS for this product.

Note: This information is principally relevant to the bulk handling and manufacturing of the preparation. For information concerning toxicity and safe use of the preparation in air treatment applications using Prolitec appliances, consult the MSDS (Material Safety Data Sheet) available upon email request to SAFETY@Prolitec.com

1. Identification of the Substance/Preparation and of the Company/Undertaking

- Identification of the substance or preparation
  F1028
  Citrus Splash

- Intended use
  Diffusion for air treatment applications using the Prolitec AirQ series 100, 200 500 and 1000 model nebulization system units (NSU).

  Not for personal use in this form or concentration.

  Company/Undertaking identification
  Prolitec Inc.
  1235 W. Canal Street
  Milwaukee, WI 53233 USA
  Tel: +1 414 615 4630 Fax +1 414 615 4640
  Safety@prolitec.com

2. Hazards Identification

- Not Hazardous

3. Composition/Information on Ingredients

Mixture of aromatic substances.

Contains:
10.0 – 15.0% tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isonomers (cis and trans) – Xi –R36
N°CAS: 0063500-71-0 / N° ELINCS: 405-040-6

10.0 – 15.0% Propyl (2S)-2-(1,1-dimethylpropoxy)-propanoate- -R52/53
N° CAS: 0319002-92-1/ N° ELINCS: 437-530-0

2.5 – 5.0% Cyclohexanol, 2-(1,1-dimethylethyl)-, acetate- N –R51/53
N° CAS: 0000088-41-5 / N° EINECS: 201-828-7

2.5 – 5.0% 4.7-Methano-1H-nden-6-ol, 3a,4,5,6,7,7a-hexahydro-,acetate R52/53
N° CAS: 0005413-60-5 / N° EINECS: 226-501-6

2.5 – 5.0% Benzeneethanol, .alpha.,.alpha.-dimethyl-,acetate- - R52/53
N° CAS: 0000151-05-3 / N° EINECS: 205-781-3

2.5 – 5.0% 3-Cyclohexene-1-carboxaldehyde, 4-(4-methyl-3-pentenyl)- - N –R51/53
N° CAS: 0037677-14-8 / N° EINECS: 253-617-4

1.0 – 2.5% 2-Pentylcyclopentan-1-ol- Xi –R36/38
N° CAS: 0084560-00-9 / N° EINECS: 283-187-3

1.0 – 2.5% Acetic acid, (1-oxopropoxy)-, 1-(3,3-dimethylcyclohexyl) ethyl ester (9CI) – N –R51/53
N° CAS: 0236391-76-7 / N° ELINCS: 431-700-8

0.1 – 0.5% 2(3H)-Furanone, 5-heptyldihydro - - N –R51/53
N° CAS: 0000104-67-6 / N° EINECS: 203-225-4

4. **First-Aid Measures**

- Skin exposure: Remove contaminated clothes. Wash skin with large volumes of water (or soap and water). If irritation persists, or any sign of tissue damage is apparent, obtain medical advice immediately.
- Eye exposure: Irrigate copiously with water for at least 10 minutes. Obtain medical advice if any irritation or evidence of tissue damage persists.
- Accidental ingestion: Rinse mouth with water. Give up to one tumbler (half pint) of milk or water. Obtain medical advice immediately.
- Excessive inhalation: Remove the individual to fresh air and keep at rest. Obtain medical advice immediately.
- General Comments: As in all cases of potential poisoning, supportive therapy is of the utmost importance.

5. **Fire and Explosion Information**

Open Flame: Used as directed for the Application diffused by the specified models of the Prolitec micro-droplet generation devices, the diffusion plume of micro-droplets exiting from output of the appliance will not ignite or combust in the presence of an open flame.

Flashpoint: The flash point is the lowest temperature, corrected to an average barometric pressure of 760 mm of Mercury, at which the vapors of the Formulation in a closed vessel will ignite under specified test conditions. The flash point of the Formulation is 66^{o} Centigrade. The Formulation should not be stored or used at or near the Flashpoint.

Explosive Limits: UEL LEL
The ignition of a combustible vapor mixed with the air in the proper proportions will produce an explosion. The proper proportion is expressed here as the concentration of the vapor at any stage of the proposed diffusion process in parts per million volume (PPMV) under normal conditions of pressure. The PPMV concentrations of a flammable vapor in which a flash will occur of a flame will travel if the mixture is ignited is called the “explosive range”. There are two explosive limits for a vapor, the lower explosive limit (LEL) and the upper explosive limit (UEL). At concentrations in the air below the LEL there is not enough fuel to continue an explosion; at concentrations above the UEL the fuel has displaced so much air that there is not enough oxygen to begin a reaction and cause an explosion.

This formulation:

(a) does NOT qualify for having a determined LEL/UEL because the material does NOT contain ethanol or other highly volatile organic compounds. The vapor pressure is less than 0.1 mm Hg @ 20°C; and

(b) used as directed in the proposed application, is NOT presented in concentrations within the explosive range at any step or stage of the intended application

For illustrative comparison, if the intended application used ethanol instead of the Formulation, the vapor would require an LEL of 38,000 PPMV.

Firefighting Measures: Dry chemical for small fires and fog or foam or water (no high pressure water stream) for larger fires. Avoid inhalation of smoke, fumes. In case of insufficient ventilation, wear suitable respiratory equipment.

6. **Handling:** Keep cartridges sealed until removed from master package for installation. Keep cartridges in an upright position after unsealing.

7. **Storage:** Store cartridges unopened in a master carton at room temperature. Do not expose cartridges to sunlight.

8. **Accidental Spill – Clean up, exposure and personal Protection**

- Exposure Controls
  - Do not subject to unnecessarily high temperature during processing.
  - Maintain adequate ventilation in the spill area.

- Personal Protection
  - Use Respiratory protection: where ventilation may be inadequate, wear self-contained breathing apparatus.
  - Use rubber gloves and safety goggles when cleaning up.
  - Skin protection: depending on working situation these should include wearing protective clothing, which will also limit the odour contamination of personal clothing. Good personal washing routines should be followed.

- Clean up Methods: Use absorbent materials or inert powders or sand followed by soap and water.

9. **Physical and Chemical Properties**

Appearance: LIQUID
Odor: Characteristic strong odour according to description
Color: Colourless to very Pale Yellow
Flashpoint (closed cup): = 66°C
Relative density: .927 - .937
pH: Not available
Boiling point/boiling range: Not available
Melting point/melting range: Not available
Vapor Pressure: 0.1 mm Hg @ 20°C

Autoflammability: Not Applicable
Explosive properties: None
Oxidizing properties: Not an oxidizing agent
Partition coefficient (n-octanol/water): Not applicable
Water solubility (20°C): Not Applicable

10. **Stability and Reactivity**

Good stability at standard temperature. Avoid temperatures above or near to the flashpoint. Do not heat in closed containers. No reaction known with water. Contact with water or storage under recommended conditions for one year should not produce dangerous decomposition products. Avoid contact with oxidizing agents.

11. **Toxicological Information for Intended Use and for the bulk liquid in the transport container**

General Toxicity**:** The specific Formulation has been blended from materials with established toxicological bibliographies that have passed the "Safety Determination" process but have not been subjected to toxicological testing as an entity. In view of the difficulty in predicting the extent to which the oral consumption (drinking) of quantities of the Formulation in excess of the amount contained in any single Cartridge may present a hazard to susceptible individuals or arising from unforeseeable potential, this preparation in bulk should be considered and handled as if it displayed health hazards, and treated in consequence with precaution. Please also see the safety information in "Safety Determination," "Drinking" and "Inhalation" sections below.

Safety Determination: Ingredients of the Formulation have been evaluated for safety when used 100% for the Application using the Prolitec micro-droplet generation and diffusion appliances as specified above in Section I both "as directed" and in a "maximum foreseeable abuse" scenario ("MFA"). In the design and blending of the Formulation, Prolitec only uses ingredients for which appropriately qualified people carry out a safety clearance procedure. For each ingredient in the Formulation, the safety clearance takes into account the following information:

1. Safety data generated by the Research Institute for Fragrance Materials ("RIFM" www.RIFM.org), its vendors and the open scientific literature. This data is evaluated in accordance with the principles laid down in Annex 1 to the International Fragrance Association ("IFRA" www.ifraorg.org) Code of Practice. Annex 1 requires consideration of possible effects in the skin, including skin irritation and sensitization with special attention paid to the effect of sunlight, should ingredients absorb ultra-violet radiation. Systemic toxicity should be considered in relation to the quantities used and likelihood of entering the body.
2. A history of safe-use of the ingredients at the concentration levels proposed, taking into account any reports of adverse effects reported by Dermatologists or other medical professionals.
3. Restrictions on the use of the ingredient published in the IFRA Standards.
4. Threshold limit values in airborne concentration of ingredients published by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA): 29 CFR 1910.1200 Subpart Z, Table Z-1. Restrictions imposed by the State of California, Safe Drinking Water and Toxic Enforcement Act of 1986 on chemicals known to cause cancer or reproductive toxicity.
5. The concentration in the air of each Formulation ingredient in parts per million (PPM) in Product Use if necessary to create a Level 3 ("Obvious") to the MFA Level 6 ("Intolerable") scent effect.

Ingestion**:** The probable oral lethal dosage of the Formulation for a 150 lbs person is 327 ml as determined using the Gosselin formula. According to the Hodge and Sterner scale the Toxicity Class for the Formulation is estimated at level 3 or "Moderately Toxic." The Gosselin, Smith and Hodge Scale is Level 3 or "Moderately Toxic."

Inhalation:

1. Use of the Formulation in the specified Product Use is in conformance with the threshold limit values prescribed by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA): 29 CFR 1910.1200 Subpart Z, Table Z-1 ("Subpart Z") table of Air Contaminants and the State of California, Safe Drinking Water and Toxic Enforcement Act of 1986.

2. The Formulation does contain ingredients subject to an OSHA or US State of California restriction or threshold limit value.

   The table below compares the OSHA Subpart Z Ceiling PPM Concentration Values for the

Formulation with the PPM values that the Application needs to create to achieve the following scent intensity levels.

(a) Level 3 scent intensity or "obvious;"
(b) Level 4 scent intensity or "strong;" and
(c) Level 6 scent intensity or "intolerable"

Chemical	CAS #	Percent of Compound %	OSHA Max Ceiling ppm	Max Concentration Level 3 0.5 ppm	Level 4 1 ppm	Level 6 10 ppm
Dipropylene Glycol Methyl Ether	34590-94-8	40	100	0.2	0.4	4
Isoamyl Acetate	123-92-2	1	100	0.005	0.01	0.1
Ethyl Acetate	141-78-6	< 0.0001	400	<0.0000005	< 0.000001	<0.00001

3. The Formulation contains no ozone and the Product Use does not generate ozone. The Formulation contains no toxic chemical or chemicals subject to reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986.

12. **Ecological Information**

This preparation has not been subjected to ecotoxicological testing as an entity. In view of the difficulty of using current standard ecotoxicological evaluation techniques to predict the impact of particular modes of release on vulnerable or localized parts of the ecosystem, this preparation should be considered and handled as if it displayed potential environmental hazards, and treated in consequence with all possible precaution.

13. **Disposal Considerations**

Residual quantities of the product should be treated according to the instructions given under points 6, 7, and 8 above. Wastes should be eliminated according to national or regulatory requirements currently in force.

14. **Transport and Conveyance Information**

In case of accidental spillage or fire during transport, refer to instructions given under points 5, 6, 7, and 8 above.

- ICAO/IATA (AIR)
  UN/ID-Nr: Not regulated
  Class: ---
  PG: ---

- ADR/RID (LAND)
  UN-Nr: Not regulated
  Class: ---
  PG: ---

- PHMSA (USDOT)
  HMT Not hazardous
  Class: ---

- IMDG (OCEAN) Not hazardous

15. **Regulatory Information**
    - Not Applicable – Not Bulk Liquids (dispenser quantities)

16. **Other Information**
    - For further information on the intended use of the preparation as an air treatment agent and general and inhalation toxicity associated with the intended use please refer to the Material Safety Data Sheet available on request to Safety@Prolitec.com or www.prolitec.com\safety\MSDS.