# SAFETY DATA SHEET

**Dove Dry Spray Antiperspirant (Aerosol) – All Variants**  
Nourished Beauty, Origin Clean, Sensitive Shield, Extra Fresh, Clear Finish, Powder Soft

## Section 1. Identification

| **Product name**                      | Dove Dry Spray Antiperspirant – All Variants  
Nourished Beauty, Origin Clean, Sensitive Shield, Extra Fresh, Clear Finish, Powder Soft |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product type</strong></td>
<td>Antiperspirant</td>
</tr>
<tr>
<td><strong>UPC Code</strong></td>
<td>079400342423, 079400528063, 079400528032, 079400528049, 079400591463, 079400599384</td>
</tr>
<tr>
<td><strong>Internal product code</strong></td>
<td>M_83258786, M_83298631, M_83298632, M_83254917, M_83328236, M_83327003</td>
</tr>
</tbody>
</table>

### Relevant identified uses of the substance or mixture and uses advised against

<table>
<thead>
<tr>
<th><strong>Identified uses</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial uses: Uses of substances as such or in preparations at industrial sites</td>
<td></td>
</tr>
<tr>
<td>Consumer uses: Private households (= general public = consumers)</td>
<td></td>
</tr>
<tr>
<td>Professional uses: Public domain (administration, education, entertainment, services, craftsmen)</td>
<td></td>
</tr>
</tbody>
</table>

| **Supplier's details** | UNILEVER  
700 Sylvan Avenue  
Englewood Cliffs   NJ 07632  
USA |
|------------------------|----------------------------------------------------------|

| **Emergency telephone number (with hours of operation)** | Phone #: 800-761-3683 Monday thru Friday (8:30 AM – 5:00 PM EST)  
Emergency #: 800-745-9269 (24 hours)  
Poison Control #: 800-949-7866 (24 hours)  
CHEMTREC #: 800-424-9300(24 hours, Transportation Emergencies) |
|---------------------------------------------------------------|---------------------------------------------------------------------------|
Consumer Information:
For information regarding the use of this product by a consumer, please refer directly to the product label. This industrial MSDS is provided for workplace employees, per US OSHA regulations. It contains recommendations for handling of this product in an occupational, or workplace, setting.

Any first aid or warnings that are applicable to consumer use are stated directly on the product label, in accordance with all applicable government regulations.

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 2
GASES UNDER PRESSURE - Compressed gas

GHS label elements

Hazard pictograms :

Signal word : Warning
Hazard statements :
Flammable aerosol.
Contains gas under pressure; may explode if heated.
Pressurized container: may burst if heated.

Precautionary statements

General : Keep out of reach of children.
Prevention : Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Pressurized container: Do not pierce or burn, even after use. Avoid breathing gas. Do not spray on an open flame or other ignition source.
Response : Not applicable.
Storage : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.
Disposal : Dispose of used up container in accordance with local regulations.

Supplemental label elements : None known.
Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
CAS number/other identifiers

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>25 - 50</td>
<td>106-97-8</td>
</tr>
<tr>
<td>Hydrofluorocarbon 152a</td>
<td>10 - 25</td>
<td>75-37-6</td>
</tr>
<tr>
<td>Isobutane</td>
<td>10 - 25</td>
<td>75-28-5</td>
</tr>
<tr>
<td>PPG-14 Butyl Ether</td>
<td>5 - 10</td>
<td>9003-13-8</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the
exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

<table>
<thead>
<tr>
<th></th>
<th>Eye contact</th>
<th>Inhalation</th>
<th>Skin contact</th>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th></th>
<th>Eye contact</th>
<th>Inhalation</th>
<th>Skin contact</th>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adverse symptoms may include the following: irritation redness</td>
<td>Adverse symptoms may include the following: respiratory tract irritation coughing</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

Indication of immediate medical attention and special treatment needed, if necessary

<table>
<thead>
<tr>
<th></th>
<th>Notes to physician</th>
<th>Specific treatments</th>
<th>Protection of first-aiders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.</td>
<td>No specific treatment.</td>
<td>No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.</td>
</tr>
</tbody>
</table>

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Unsuitable extinguishing media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>None known.</td>
</tr>
</tbody>
</table>
NFPA 30B Classification : Aerosol Level 2

Specific hazards arising from the chemical : Flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials: carbonyl halides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble,
Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C/120°F. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<p>| Version: | 1.5 | Date of issue/Date of revision: | 03.16.2017 | Date of previous issue: | 00.00.0000 |</p>
<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>NIOSH REL 1994-06-01 TWA</td>
</tr>
<tr>
<td></td>
<td>1,900 mg/m³</td>
</tr>
<tr>
<td></td>
<td>800 ppm</td>
</tr>
<tr>
<td></td>
<td>Form:</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV 2003-01-01 TWA</td>
</tr>
<tr>
<td></td>
<td>1,000 ppm</td>
</tr>
<tr>
<td>Hydrofluorocarbon 152a</td>
<td>AIHA WEEL 1999-01-01 TWA</td>
</tr>
<tr>
<td></td>
<td>1,000 ppm</td>
</tr>
<tr>
<td>Isobutane</td>
<td>NIOSH REL 1994-06-01 TWA</td>
</tr>
<tr>
<td></td>
<td>1,900 mg/m³</td>
</tr>
<tr>
<td></td>
<td>800 ppm</td>
</tr>
<tr>
<td></td>
<td>Form:</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV 1996-05-18 TWA</td>
</tr>
<tr>
<td></td>
<td>1,000 ppm</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls**: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures**: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

### Section 9. Physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid [aerosol]</td>
</tr>
<tr>
<td>Colour</td>
<td>beige</td>
</tr>
<tr>
<td>Odour</td>
<td>perfumed</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td><strong>Lower</strong>: Not available. <strong>Upper</strong>: Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Version: 1.5  Date of issue/Date of revision: 03.16.2017  Date of previous issue: 00.00.0000
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.

Aerosol product
Type of aerosol : Spray
Can pressure : <=160 PSI at 54°C/130°F
Heat of combustion : < 20 J/kg
Ignition distance : 30 cm
Enclosed space ignition - Time equivalent : Not available.
Enclosed space ignition - Deflagration density : Not available.
Flame height : Not applicable.
Flame duration : Not applicable.

Section 10. Stability and reactivity
Reactivity : No specific test data related to reactivity available for this product or its ingredients.
Chemical stability : The product is stable.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid : Avoid all possible sources of ignition (spark or flame).
Incompatible materials : No specific data.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information
Information on toxicological effects
Acute toxicity
Conclusion/Summary : Very low toxicity to humans or animals.

Irritation/Corrosion
Conclusion/Summary
Skin : The mixture is not an irritant for the skin.
Eyes : The mixture is not an irritant for eyes.
Respiratory : Based on available data, the classification criteria are not met.
Sensitisation

Conclusion/Summary
- Skin: Based on available data, the classification criteria are not met.
- Respiratory: Based on available data, the classification criteria are not met.

Mutagenicity

Conclusion/Summary: Not applicable.

Carcinogenicity

Conclusion/Summary: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Reproductive toxicity

Conclusion/Summary: Not applicable.

Teratogenicity

Conclusion/Summary: Not applicable.

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on the likely routes of exposure: Not available.

Potential acute health effects

Eye contact: No known significant effects or critical hazards.
Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:
- irritation
- redness
Inhalation
   : Adverse symptoms may include the following:
     respiratory tract irritation
     coughing

Skin contact
   : No specific data.

Ingestion
   : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

Potential immediate effects
   : Not available.

Potential delayed effects
   : Not available.

**Long term exposure**

Potential immediate effects
   : Not available.

Potential delayed effects
   : Not available.

**Potential chronic health effects**

**Conclusion/Summary**
   : Very low toxicity to humans or animals.

**General**
   : No known significant effects or critical hazards.

**Carcinogenicity**
   : No known significant effects or critical hazards.

**Mutagenicity**
   : No known significant effects or critical hazards.

**Teratogenicity**
   : No known significant effects or critical hazards.

**Developmental effects**
   : No known significant effects or critical hazards.

**Fertility effects**
   : No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

**Section 12. Ecological information**

**Toxicity**

**Conclusion/Summary**
   : No known significant effects or critical hazards.

**Persistence and degradability**

**Conclusion/Summary**
   : No known significant effects or critical hazards.
Conclusion/Summary: No known significant effects or critical hazards.

Mobility in soil:

Soil/water partition coefficient (KOC): Not available.

Other adverse effects: No known significant effects or critical hazards.

### Section 13. Disposal considerations

**Disposal methods:** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

**RCRA classification:** D001 (Ignitable)

**United States - RCRA Acute hazardous waste "P" List:** Not listed

**United States - RCRA Toxic hazardous waste "U" List:** Not listed

### Section 14. Transport information

<table>
<thead>
<tr>
<th>FOR SHIPMENT IN CONSUMER PACKAGING</th>
<th>GROUND</th>
<th>WATER</th>
<th>AIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPER SHIPPING NAME:</td>
<td>Aerosols, Flammable</td>
<td>Aerosols</td>
<td>Aerosols, Flammable</td>
</tr>
<tr>
<td>HAZARD CLASS:</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>UN/ID #:</td>
<td>UN1950</td>
<td>UN1950</td>
<td>UN1950</td>
</tr>
<tr>
<td>PACKING GROUP:</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**REQUIRED MARKINGS and/or LABELS:**  
- UN1950 Aerosols, Flammable
MARKINGS and/or LABEL TYPES:

<table>
<thead>
<tr>
<th>MARKINGS and/or LABEL TYPES</th>
<th>Limited Quantity</th>
<th>Limited Quantity</th>
<th>Limited Quantity, Flammable Gas</th>
</tr>
</thead>
</table>

ADDITIONAL INFORMATION:

<table>
<thead>
<tr>
<th>ADDITIONAL INFORMATION</th>
<th>ERG #126 Marine Pollutant: Not regulated</th>
<th>ERG #126 Proper Shipping Name &amp; UN # must be shown on the package.</th>
</tr>
</thead>
</table>

Special precautions for user: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product have been trained in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available.

Section 15. Regulatory information

U.S. Federal regulations:

- United States - TSCA 12(b) - Chemical export notification: None of the components are listed.
- United States - TSCA 4(a) - Final Test Rules: Not listed
- United States - TSCA 4(a) - ITC Priority list: Not listed
- United States - TSCA 4(a) - Proposed test rules: Not listed
- United States - TSCA 4(f) - Priority risk review: Not listed
- United States - TSCA 5(a)2 - Final significant new use rules: Not listed
- United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed
- United States - TSCA 5(e) - Substances consent order: Not listed
- United States - TSCA 6 - Final risk management: Not listed
- United States - TSCA 6 - Proposed risk management: Not listed
- United States - TSCA 8(a) - Chemical risk rules: Not listed
- United States - TSCA 8(a) - Dioxin/Furan precursor: Not listed
- United States - TSCA 8(a) - Chemical Data Reporting (CDR): Not determined
- United States - TSCA 8(a) - Preliminary assessment report (PAIR): Listed Cyclopentasiloxane
- United States - TSCA 8(c) - Significant adverse reaction (SAR): Not listed
- United States - TSCA 8(d) - Health and safety studies: Not listed
- United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Not listed
- United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Not listed
- United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances: Listed
- United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed
- United States - Department of commerce - Precursor chemical:
Clean Air Act Section 112(b): Not listed
Hazardous Air Pollutants (HAPs): Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Not listed

SARA 302/304

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>EHS</th>
<th>SARA 302/304</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>25 - 50</td>
<td>Yes.</td>
<td>SARA 304 RQ: 100 lb/lbs</td>
</tr>
<tr>
<td>Hydrofluorocarbon 152a</td>
<td>10 - 25</td>
<td>Yes.</td>
<td>SARA 304 RQ: 100 lb/lbs</td>
</tr>
<tr>
<td>Isobutane</td>
<td>10 - 25</td>
<td>Yes.</td>
<td>SARA 304 RQ: 100 lb/lbs</td>
</tr>
</tbody>
</table>

SARA 304 RQ: 399.8 lbs

SARA 311/312
Classification: Fire hazard
Sudden release of pressure

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>25 - 50</td>
<td>F, P, CH</td>
</tr>
<tr>
<td>Isobutane</td>
<td>10 - 25</td>
<td>F, P, CH</td>
</tr>
</tbody>
</table>

SARA 313
None of the components are listed.

State regulations
<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts</td>
<td>The following components are listed: Isobutane Butane</td>
</tr>
<tr>
<td>New York</td>
<td>None of the components are listed.</td>
</tr>
<tr>
<td>New Jersey</td>
<td>The following components are listed: Isobutane Butane</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>The following components are listed: Isobutane Butane</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>The following components are listed: Isobutane Butane</td>
</tr>
<tr>
<td>New York</td>
<td>None of the components are listed.</td>
</tr>
<tr>
<td>New Jersey</td>
<td>The following components are listed: Isobutane Butane</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>The following components are listed: Isobutane Butane</td>
</tr>
</tbody>
</table>

**US California 22CCR Appendix X Substances**

- Not listed.

**California Prop. 65**

- Not available.

**United States inventory (TSCA 8b)**

- Exempted

**Canada inventory**

- Not determined.

**International regulations**

<table>
<thead>
<tr>
<th>International lists</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia inventory (AICS)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Taiwan inventory (CSNN)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Malaysia Inventory (EHS Register)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Japan inventory</td>
<td>Not determined.</td>
</tr>
<tr>
<td>China inventory (IECSC)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Korea inventory</td>
<td>Not determined.</td>
</tr>
<tr>
<td>New Zealand Inventory of Chemicals (NZIoC)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Philippines inventory (PICCS)</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

**Chemical Weapons Convention**

| List Schedule I Chemicals | Not listed |
| List Schedule II Chemicals | Not listed |
| List Schedule III Chemicals | Not listed |

**Section 16. Other information**

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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USA

Key to abbreviations : ATE = Acute Toxicity Estimate
ACGIH = American Conference of Governmental & Industrial Hygienists
AH = Acute Hazard
BCF = Bioconcentration Factor
CAA = Clean Air Act
CARB = California Air Resources Board
CCR = California Code of Regulations
CERCLA = Comprehensive Environmental Response, Compensation & Liability Act
CFR = Code of Federal Regulations
CH = Chronic Hazard
CWA = Clean Water Act
DEA = Drug Enforcement Administration
DOT = Department of Transportation
EC = European Commission
EPCRA = Emergency Planning and Community Right-To-Know Act
EST = Eastern Standard Time
F = Fire
HAPS = Hazardous Air Pollutants
HCS = Hazard Communication Standard
HMIS = Hazardous Materials Information System
HVOC = High Volatile Organic Compound
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IARC = International Agency for the Research of Cancer
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
ICAO = International Civil Aviation Organization
IMDG = International Maritime Dangerous Goods
IMO = International Maritime Organization
ITC = Intergency Testing Committee (TSCA)
KOC = Organic Carbon/Water Partition Constant
LogPow = logarithm of the octanol/water partition coefficient
LVOC = Low Volatile Organic Compound
pollution)
MPPCF = Million Particles Per Cubic Foot
N/A = Not Applicable
NFPA = National Fire Protection Association
NOEC = No Observable Effect Concentration
NTP = National Toxicology Program
OSHA = Occupation Safety & Health Administration
PEL = Permissible Exposure Limit
RCRA = Resource Conservation & Recovery Act
RQ = Reportable Quantity
RTK = Right-To-Know
SARA = Superfund Amendments & Reauthorization Act
STEL = Short-Term Exposure Limit
TBD = To Be Determined
TCC = Tagliabue Closed Cup
TCLP = Toxicity Characteristic Leaching Procedure
TDG = Transport of Dangerous Goods
TLV = Threshold Limit Value
TSCA = Toxic Substances Control Act
TWA = Time Weighted Average
UN = United Nations

References : Evaluation method used for mixture classification: Calculation method.

Notice to reader

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