

# MATERIAL SAFETY DATA SHEET

## MSDS B-101 REVISION 12

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

The Dial Corporation  
19001 N. Scottsdale Road  
Scottsdale, Arizona 85255-9672

Medical Emergencies: 1-888-689-9082  
Chemtrec: 1-800-424-9300 (24 Hours Daily)  
Other Information: 1-888-468-6673

PRODUCT: Aerosol Antiperspirant DATE OF ISSUE: February 25, 2009  
TRADE NAMES/SYNONYMS: Dial® Aerosol Antiperspirant: Regular Scent/Crystal Breeze, Unscented  
CHEMICAL FAMILY: Mixture  
I.D. NUMBERS: 99102754 (Dial Regular Scent/Crystal Breeze), 99102755 (Dial Unscented)

### SECTION 2: HAZARD IDENTIFICATION

#### EMERGENCY OVERVIEW

**CAUTION:** This product is a white solution with various scents, in an aerosol can. Direct contact with eyes may cause irritation. Intentional inhalation of vapors may cause irritation of the nose, throat, and respiratory tract. Breathing high vapor concentrations may produce anesthetic effects, nausea, dizziness, headache, weakness, peripheral drowsiness. Intentional misuse of product (i.e., huffing) may produce death. Keep out of reach of children. No significant environmental effects. Dangerous fire hazard when exposed to heat or flame. Product is stable.

This product is labeled in accordance with guidelines set forth in the Food, Drug, and Cosmetic Act. The use pattern and exposure in the workplace are generally not consistent with those experienced by consumers. The requirements of the Occupational Safety and Health Administration applicable to this Material Safety Data Sheet may differ from the requirements of the FD&C Act and as a result, this MSDS may contain additional health hazard information not pertinent to consumer use and not found on the product label.

#### REGULATORY STATUS

This product is considered to be hazardous under OSHA's Hazard Communication Standard (29 CFR 1900.1200).

#### POTENTIAL HEALTH EFFECTS

**NOTE:** The acute health effects described below are those which could potentially occur for the finished product. They are based on the toxicology information available for the finished product and/or each hazardous ingredient, and are consistent with the product type and the likelihood of a specific route of exposure. Known chronic health effects related to exposure to a specific ingredient are indicated.

**EYE CONTACT:** May cause moderate to severe irritation.

**SKIN CONTACT:** Repeated or prolonged excessive exposure may cause irritation or dermatitis.

**INGESTION:** Ingestion of large quantities may cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**INHALATION:** Inhalation of product mist may cause irritation of the nose, throat, and respiratory tract. Breathing high vapor concentrations may produce anesthetic effects, nausea, dizziness, headache, weakness, peripheral drowsiness. Intentional misuse of product (i.e., huffing) may produce death.

**CHRONIC HEALTH EFFECTS:** None known.

**MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE:** Pre-existing respiratory conditions such as asthma or skin conditions.

#### POTENTIAL ENVIRONMENTAL EFFECTS

See Section 12: Ecological Information.

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Based on our hazard evaluation, the following chemical substance(s) in this product have been identified as hazardous.

<u>INGREDIENT</u>	<u>CAS NUMBER</u>	<u>PERCENT (w/w)</u>
Isobutane	75-28-5	30 – 60 %
1,1-Difluoroethane (D152A)	75-37-6	10 – 30 %
Cyclopentasiloxane	541-02-6, 556-67-2	10 – 30 %
Aluminum Chlorohydrate	1327-41-9	10 – 30 %
Propane	74-98-6	1 – 5 %

**SECTION 4: FIRST AID MEASURES**

**EYES:** Immediately rinse eyes with plenty of water, occasionally lifting upper and lower lids, until no evidence of product remains. Get medical attention if pain or irritation persists.

**SKIN:** Rinse affected area with mild soap and water until no evidence of product remains. Get medical attention if irritation persists.

**INGESTION:** Treat symptomatically and supportively. Maintain airway and respiration. DO NOT induce vomiting. If vomiting occurs, keep head below hips to prevent aspiration. Dilution by rinsing the mouth and giving water or milk to drink is generally recommended. If unconscious, the victim should not be given anything to drink. Contact physician or local poison control center.

**INHALATION:** Remove from exposure area to fresh air immediately. Keep affected person warm and at rest. Treat symptomatically and supportively. Contact physician or local poison control center. If breathing has stopped, give artificial respiration, and get medical attention immediately.

**NOTE TO PHYSICIAN:** The physician's judgment should be used to control symptoms and clinical condition based on the individual reactions of the patient.

**SECTION 5: FIRE FIGHTING MEASURES****FLAMMABLE PROPERTIES**

OSHA FLAMMABILITY CLASSIFICATION: Flammable Liquid – Class IA.

FLASH POINT (PROPELLANT): <-20 °C/<-4 °F (CC)(Isobutane)

UPPER FLAMMABILITY LIMIT: 9.5% for Isobutane

LOWER FLAMMABILITY LIMIT: 1.8% for Isobutane

AUTO-IGNITION TEMPERATURE: Not available

FLAME EXTENSION: < 18 in.

**FIRE AND EXPLOSION HAZARD:** Dangerous fire hazard when exposed to heat or flame. Aerosol cans may rupture in heat or fire conditions. Vapors are heavier than air and may travel to an ignition source.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Irritating smoke, carbon monoxide, and carbon dioxide.

**EXTINGUISHING MEDIA**

Dry chemical or carbon dioxide. For larger fires, use water spray, fog or regular foam.

**PROTECTION OF FIREFIGHTERS**

Shut off all ignition sources. Move containers from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Use flooding amounts of water as fog. Cool product aerosol cans with flooding amounts of water from as far a distance as possible. Avoid breathing vapors; keep upwind. As with any containerized or pressurized chemicals, in the event of overheating or direct flame contact, evacuate the area to minimize hazard of potential explosion.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Wear skin, eye and respiratory protection as recommended in Section 8. Shut off ignition sources. Stop leak if you can do it without risk. Use water spray to reduce vapors. Isolate area until vapors have dispersed. No smoking, flames or flares in hazard area! Keep unnecessary people away; isolate hazard area and deny entry. Ventilate closed spaces before entering. Stay upwind; keep out of low areas.

### ENVIRONMENTAL PRECAUTIONS

Small or household quantities may be disposed in regular domestic trash. For larger quantities check with your local disposal authorities.

### METHODS FOR CONTAINMENT AND CLEAN UP

**SMALL SPILLS:** Contain and absorb with sand or other non-combustible absorbent material and place into containers for later disposal. Wash site of spillage thoroughly with water. **LARGE SPILLS:** Shut off ignition sources. Do not touch spilled material. Stop leak if you can do it without risk. Use water spray to reduce vapors. Isolate area until gas has dispersed. No smoking, flames or flares in hazard area! Keep unnecessary people away; isolate hazard area and deny entry. Ventilate closed spaces before entering. Stay upwind; keep out of low areas.

## SECTION 7: HANDLING AND STORAGE

### HANDLING:

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available.

### STORAGE:

Store in original containers in a cool dry area away from incompatible substances, excessive heat, flames, sparks or other ignition sources. Contents are under pressure; containers may violently rupture and travel a considerable distance. Do not store above 120°F. Exposure to sunlight or heat (above 130°F/54°C) may cause bursting. Do not puncture or incinerate. Storage areas for large quantities (warehouse) should be well ventilated. Keep the containers tightly closed when not in use. Observe all federal, state and local regulations when storing or disposing of this substance.

## SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

This product is a personal care or cosmetic product. The use of this product by consumers is safe under normal and reasonable foreseen use. The information provided below refers to the occupational settings.

### WORKER EXPOSURE LIMITS:

The following exposure limits exist for the ingredients listed below. The TLV-TWA is the ACGIH Threshold Limit Value – Time Weighted Average. TLV-Ceiling Limit is the ACGIH Threshold Limit Value – Ceiling Limit. PEL is the OSHA Permissible Exposure Limit. WEEL-TWA is the AIHA Workplace Environmental Exposure Level - Time Weighted Average.

INGREDIENT	CAS NUMBER	EXPOSURE LIMIT
Isobutane & Propane (as aliphatic hydrocarbon gases, alkane C <sub>1</sub> – C <sub>4</sub> )	75-28-5	TLV-TWA: 1000 ppm (1800 mg/m <sup>3</sup> ); NIOSH-TWA: 800 ppm
Aluminum Chlorohydrate	74-98-6	(1900 mg/m <sup>3</sup> ) NIOSH recommended TWA
(Aluminum, Soluble Salts, (as AL):	1327-41-9	TLV-TWA: 2 mg/m <sup>3</sup>
1,1-Difluoroethane (D152A)	75-37-6	WEEL-TWA: 1000 ppm

**ENGINEERING CONTROLS:** Provide local exhaust or general dilution ventilation to keep exposure to airborne contaminants below the permissible exposure limits where mists or vapors may be generated. Ventilation equipment should be explosion-proof.

**RESPIRATOR:** Air contamination monitoring should be carried out where mists or vapors are likely to be generated, to assure that the employees are not exposed to airborne contaminants above the permissible exposure limits. If respiratory protection is required, it must be based on the contamination levels found in the workplace, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

**FOR FIRE FIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:** Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

**CLOTHING:** Protective clothing is required where repeated or prolonged skin contact may occur.

**GLOVES:** Protective gloves are required where repeated or prolonged skin contact may occur.

**EYE/FACE PROTECTION:** Splash-proof safety glasses are required to prevent eye contact where splashing of product may occur.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid aerosolized white spray		
ODOR/ODOR THRESHOLD:	Pleasant fragrance	PHYSICAL STATE:	Liquid/Aerosol
pH (@ 25 °C):	Not applicable	VAPOR DENSITY:	Not available
BOILING POINT:	Not available	VAPOR PRESSURE:	Not available
MELTING/FREEZING POINT:	Not available	FLASH POINT:	See Section 5.
FLAMMABLE PROPERTIES:	See Section 5.	SOLUBILITY IN WATER:	Not applicable
DENSITY/SPECIFIC GRAVITY:	Not available	EVAPORATION RATE:	Not available
OCTANOL/WATER PARTITION COEFFICIENT (K <sub>ow</sub> ):	Not available		
VISCOSITY:	Not available	CLOUD POINT:	Not applicable

## SECTION 10: STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable under normal ambient temperature (70 °F, 21 °C) and pressure (1 atm).

**CONDITIONS TO AVOID:** Avoid contact with incompatible substances, excessive heat, flames or other ignition sources. Exposure to sunlight or heat may cause bursting. Do not permit physical damage or overheating of containers. Do not place aerosol cans in trash compactor. Contents are under pressure; containers may violently rupture and travel a considerable distance.

**INCOMPATIBLE MATERIALS:** Strong oxidizers and alkalis, chlorine, hypochlorites.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may release toxic and/or hazardous gases, including hydrogen chloride and silicon dioxide.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Polymerization does not occur under normal temperatures and pressures.

## SECTION 11: TOXICOLOGICAL INFORMATION

**PRODUCT INFORMATION SUMMARY:** This product is a personal care or cosmetic product. The use of this product by consumers is safe under normal and reasonable foreseen use. Direct contact with eyes may cause irritation. Intentional inhalation of vapors may cause irritation of the nose, throat, and respiratory tract. Breathing high vapor concentrations may produce anesthetic effects, nausea, dizziness, headache, weakness, peripheral drowsiness. Intentional misuse of product (i.e., huffing) may produce death.

**COMPONENT ANALYSIS:** The following toxicity information is for the hazardous ingredient(s) when used as technical grade and is provided as reference for the occupational settings.

INGREDIENT	LD50 / DRAIZE SCORE	TOXICITY / IRRITATION RATING
ACUTE ORAL TOXICITY		
Cyclopentasiloxane	> 50,000 ml/kg (rat)	Non-Hazardous
Aluminum Chlorohydrate	>2,000 mg/kg (rat)	Moderately Toxic

**ACUTE DERMAL TOXICITY**

Cyclopentasiloxane &gt; 18,000 ml/kg (rabbit) Non-Hazardous

**ACUTE INHALATION TOXICITY**

Isobutane or Propane 658 mg/L/4H (rat) Slightly Toxic

SENSITIZATION: This product is not considered a skin or respiratory sensitizer.

CARCINOGENICITY: None of the ingredients in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA).

MUTAGENICITY: None of the ingredients in this product are known to cause mutagenicity.

REPRODUCTIVE/FETAL/DEVELOPMENTAL TOXICITY: None of the ingredients in this product are known as reproductive, fetal, or developmental hazards.

TARGET ORGAN TOXICITY: None of the ingredients in this product are known to have target organ toxicity.

EPIDEMIOLOGICAL INFORMATION: None of the ingredients in this product are known to have health-related information in working populations.

**SECTION 12: ECOLOGICAL INFORMATION**

This product is anticipated to be safe for the environment at concentrations predicted in household settings under normal use conditions.

ENVIRONMENTAL FATE: No environmental fate data exists for the product. The product is anticipated to be rapidly biodegradable.

PERSISTENCE AND DEGRADABILITY: The persistence and degradability of this product has not been determined.

BIOACCUMULATION POTENTIAL: The bioaccumulation potential of this product has not been determined.

MOBILITY: The mobility of this product (in soil and water) has not been determined.

**SECTION 13: DISPOSAL CONSIDERATIONS**

WASTE NUMBER AND DESCRIPTION: Not regulated.

DISPOSAL CONSIDERATIONS: This product is not a RCRA hazardous waste and can be disposed of in accordance with federal, state and local regulations.

Properly deaerosolize any intact containers before disposal. Observe all federal, state and local regulations when storing or disposing of this substance.

**SECTION 14: TRANSPORT INFORMATION****TERRESTRIAL TRANSPORT**

DOT Hazard Class:	ORM-D	Packing Group:	II
DOT Proper Shipping Name:	Consumer Commodity	Shipping Label Information:	Miscellaneous 9
UN/NA Number:	ID 8000		

Combustible liquid (Liters and smaller are classed as Consumer Commodity ORM-D except when shipped by air).

**AIR TRANSPORT (ICAO/IATA)**

ICAO/IATA Hazard Class:	ORM-D ID 8000
ICAO/IATA Proper Shipping Name:	Consumer Commodity

**MARINE TRANSPORT (IMDG/IMO)**

IMDG/IMO Hazard Class:	ORM-D
Proper Shipping Name:	Consumer commodity

If the quantity being shipped exceeds the Limited quantity or Maximum Net Quantity requirements as stated in IATA/IMDG/DOT/CFR49 and/or is NOT RETAIL Packed the item (s) classification will shift to a more specific proper shipping name and classification. Please refer to IATA/IMDG/DOT/CFR49 regulations and/or contact Rich Sheridan 480 754 2379 or Paul Preston 480 754 6792.

**SECTION 15: REGULATORY INFORMATION****UNITED STATES:****OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:**

The Occupational Safety and Health Administration requires Material Safety Data Sheets to provide any hazards that may be associated with the product, and make this information available in the workplace. Since the use pattern and exposure in the workplace are generally not consistent with those experienced by consumers, this MSDS may contain additional health hazard information not pertinent to consumer use.

EPA - SARA TITLE III SECTION 313: Not applicable - Consumer product.

**EPA CERCLA/SARA TITLE III SUPERFUND AMENDMENT AND REAUTHORIZATION ACT:**

This product contains no CERCLA/SARA Title III materials. This product contains no hazardous chemicals reportable under Sections 311/312. This product contains no hazardous chemicals reportable under Section 304.

TSCA: All components of this product are listed on the U.S. Toxic Substances Control Act (TSCA) chemical substance inventory.

**STATE REGULATIONS**

CALIFORNIA PROPOSITION 65: This product does not contain substances listed under California Proposition 65.

**CANADA:****CANADIAN ENVIRONMENTAL PROTECTION ACT:**

INVENTORY STATUS: Some components of this product are not listed on the Canadian Domestic Substances List (DSL) nor the NDSL.

**HEALTH CANADA:**

This product is regulated as a natural health product under the Natural Health Products Directorate.

**WORKER HAZARDOUS MATERIALS INFORMATION SYSTEM:**

WHMIS CLASSIFICATION: Combustible Liquid.

**SECTION 16: OTHER INFORMATION**

DISCLAIMER: The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, The Dial Corporation makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, The Dial Corporation will not be responsible for damages of any kind resulting from the use of or reliance upon such information. No representations, or warranties, either expressed or implied of merchantability, fitness for a particular purpose or of any other nature is made hereunder with respect to the information set forth herein or to the product to which the information refers.

NFPA RATINGS (Scale 0-4, where 4=high degree of hazard): HEALTH=2 FLAMMABILITY=2 REACTIVITY=1  
HMIS RATINGS (Scale 0-4, where 4=severe hazard): HEALTH=2 FLAMMABILITY=2 REACTIVITY=1

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SUPERCEDES: 06/16/08, Rev. 11

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REVISION: Updated Company Information.