


1. Identification of the Product and the Company:

Product Identifier : SD 175
 Use of the product : Industrial Use
 Manufacturer and Supplier : Arora Technologies (P) Limited
 Address : Plot No. D-183/8, MIDC, TTC Nerul, Navi Mumbai- 400706, Maharashtra, India
 Telephone No. : T: +91-22-6138 0600
 E-mail : E: info@arorandt.com | W: www.arorandt.com

2. Hazard Identification:

Physical hazards : Flammable aerosols Category 1
 : Gases under pressure Compressed Gas
 Health hazards : Specific target organ toxicity(single exposure) Category 3 Narcotic effects
 : Aspiration hazard Category 1
 Environmental Hazards : Hazardous due to aquatic environment, Category 2
 : acute hazard
 OSHA defined hazards : Not Classified
 Label elements : 
 Signal word : Danger
 Hazard statement : Extremely flammable aerosol. Contains gas under pressure. May explode if heated. May be fatal if swallowed and enters airways.
 Precautionary statement
 Prevention : Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not spray on an open flame. Pressurized container: Do not pierce or burn, even after use. Avoid breathing most or vapor.
 Response : If swallowed: Immediately call a poison center/doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. Do not induce vomit.
 Storage : Store in well ventilated place. Keep container tightly closed. protect from sun.
 Disposal : Dispose of contents/container in accordance with local/ regional/ national/ international regulations.
 Hazard(s) not otherwise classified (HNOC) : Not classified.

3. Composition/information on ingredients

Chemical name	CAS number	%
Propane	74-98-6 - 200-827-9, 01-2119486944-21, 106-97-8 -	> 30%
Butane	203-448-7, 01-2119474691-32	
Propan-2-ol	67-63-0, 200-661-7 01-2119457558-25	50 - 75%

4. First-aid measures

Inhalation : Move to fresh air. Call a physician if symptoms develop or persist.
 Skin contact : Wash off with soap and water. Get medical attention if irritation develops and persists.
 Eye contact : Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.
 Ingestion : Get medical attention immediately, Rinse mouth. Do not induce vomiting.
 Most important symptoms/effects, acute and delayed : May cause eye, skin and respiratory tract irritation. Diarrhea. May cause drowsiness and dizziness. Irritation of eyes, nose and throat. skin Irritation.
 Indication of immediate medical attention and special treatment needed : Provide general supportive measures and treat symptomatically.
 General information : Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Firefighting Measures:

Suitable extinguishing media	: Water fog. Foam. Dry chemical powder. Carbon dioxide (Co2).
Unsuitable extinguishing media	: Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	: Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	: Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up.
Specific methods	: Move containers from fire area if you can do so without risk.
General fire hazards	: Extremely flammable aerosol.

6. Accidental release measures:

Personal precautions, protective equipment and emergency procedures	: Keep unnecessary personnel away. Use only non-sparking tools. Wear appropriate personal protective equipment. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS
Environmental precautions	: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Inform appropriate managerial or supervisory personnel of all environmental releases

7. Handling and storage:

Precautions for safe handling	: Pressurised containers: Do not pierce or burn even after use. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Explosion proof exhaust ventilation is recommended. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid prolonged exposure.
Conditions for safe storage, including any incompatibilities	: Level 1 Aerosol. Do not handle or store near an open flame, heat or other sources of ignition. Do not puncture, incinerate or crush. Store away from incompatible materials (see Section 10 of the SDS). Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F.

8. Exposure controls/personal protection:

Occupational exposure limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Chemical name	CAS number	Type	Value
Propan-2-ol	67-63-0	PEL	400 ppm
Butane	106-97-8	PEL	1000 ppm

US ACGIH Threshold Limit Values

Chemical name	CAS number	Type	Value
Propan-2-ol	67-63-0	PEL	200 ppm
		STEL	400 ppm
Butane	106-97-8	PEL	1000 ppm

US NIOSH: Pocket Guide to Chemical Hazards

Chemical name	CAS number	Type	Value
Propan-2-ol	67-63-0	TWA	400 ppm
		STEL	500 ppm
Butane	106-97-8	TWA	800 ppm

Biological limit values : No biological exposure limits noted for the ingredient(s).
 Exposure guidelines : No exposure standards allocated.
 Appropriate engineering controls : Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection : Wear safety glasses with side shields (or goggles).
 Skin protection :
 Hand protection : For prolonged or repeated skin contact, use suitable protective gloves.
 Other : Wear suitable protective clothing.
 Respiratory protection : Chemical respirator with organic vapor cartridge and full facepiece.
 Thermal hazards : Wear appropriate thermal protective clothing, when necessary.
 General hygiene considerations : When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties of active component

Appearance : White liquid
 Physical state : Liquid
 Form : Aerosol
 Color : White
 Odour : Characteristic
 Odour threshold : Not available.
 pH : NA
 Melting point/freezing point : NA
 Initial boiling point and boiling range : Not available
 Flash point : 12°C, 54°F.
 Evaporation rate : Not available
 Flammability (solid, gas) : Not available.
 Upper/lower flammability or explosive limits :
 Flammability limit – lower (%) : Not available.
 Flammability limit – upper (%) : Not available.
 Explosive limit – lower (%) : 2%
 Explosive limit – upper (%) : 12%
 Vapor pressure : Aerosol: 65psi at 24°C, 75°F.
 Vapor density : Not relevant.
 Relative gravity : 0.89
 Solubility(ies)
 Solubility (water) : Insoluble in water
 Partition coefficient (n-octanol/water) : Not relevant.
 Auto-ignition temperature : >250°C, >482°F
 Decomposition temperature : Not available.
 Viscosity : Not relevant.
 VOC (Weight %) : 890 g/l.

10. Stability and reactivity

Reactivity	: The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Material is stable under normal conditions.
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Avoid temperatures exceeding the flash point. Contact with incompatible materials. Avoid temperatures above 122 °F (50 °C).
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	: Expected to be a low ingestion hazard.
Inhalation	: Inhalation may cause respiratory irritation.
Skin contact	: May irritate the skin.
Eye contact	: May irritate the eyes.
Symptoms related to the physical, chemical and toxicological characteristics	: May cause eye, skin and respiratory tract irritation, Diarrhea. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Irritation of eyes and mucous membranes. Skin irritation. High concentrations: Inhalation of propellant may cause respiratory irritation, dizziness, nausea, or drowsiness.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways. Narcotic effects.
Skin corrosion/irritation	: Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	: Direct contact with eyes may cause temporary irritation. : Not a respiratory sensitizer.
Respiratory sensitization	: This product is not expected to cause skin sensitization.
Skin sensitization	: No data available to indicate product or any components present at greater
Germ cell mutagenicity	: than 0.1% are mutagenic or genotoxic.
Carcinogenicity	: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity – single exposure	: Not classified. :
Aspiration hazard	Not an aspiration hazard.
Chronic effects	: Prolonged inhalation may be harmful.

12. Ecological information:

Ecotoxicity	: Toxic to aquatic organisms.
Persistence and degradability	: No data is available on the degradability of this product.
Bioaccumulative potential	: No data available for this product.
Mobility in soil	: Not available.
Other adverse effects	: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations:

Disposal instructions	: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents /container in accordance with local/ regional/ national/ international regulations.
Waste from residues / unused products	: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

14. Transport Information:

DOT

UN number	: Un1950
UN proper shipping name	: Aerosols
Transport hazard class(es)	: 2.1
Subsidiary classes	: -

Label(s)	: Limited Quantity, Class 2.1
Packing group	: Y203
Special precautions for user	: Read safety instructions, SDS and emergency procedures before handling.
Packaging exceptions	: 306
Packaging non bulk	: None.
Packaging bulk	: None

IATA

UN number	: Un1950
UN proper shipping name	: Aerosols
Transport hazard class(es)	: 2.1
Subsidiary classes	: -
Label(s)	: Limited Quantity, Class 2.1
Packing group	: Y203
Environmental hazards	: No.
ERG Code	: 10L
Special precautions for user	: Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	: Un1950
UN proper shipping name	: Aerosols
Transport hazard class(es)	: 2.1
Subsidiary classes	: -
Label(s)	: Limited Quantity, Class 2.1
Packing group	: Not applicable
Environmental hazards	
Marine pollutant	: No.
EmS	: Not available
Special precautions for user	: Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	: Not established

15. Other information:

Further information	: Health: 2
HMIS® Ratings	Flammability: 2
	Physical Hazard: 0

NFPA Rating	: 
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List of abbreviations	: LD50: Lethal Dose, 50%. PEL: Permissible exposure limit. STEL: Short term exposure limit. TWA: Time weighted average.
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References	: HSDB® - Hazardous Substances Data Bank
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