Dentsply Sirona

Safety Data Sheet

Safety Data Sheet (in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010)

Document Number: 87862-1017
Date (New) : 11 October 2017

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier:

Trade Name (as labeled):	**Midwest® Plus Automate® Spray**
Part/Item Number:	**380180**

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

Recommended Use:	**Cleaning and Lubrication**
Restrictions on Use:	**For Professional Use Only**

1.3 Details of the Supplier of the Safety Data Sheet:

Manufacturer/Supplier Name:	**Dentsply Sirona**
Manufacturer/Supplier Address:	**901 West Oakton St.**
	Des Plaines, IL 60018
Manufacturer/Supplier Telephone Number:	**800-989-8826 or 717-767-8502 (Product Information)**
Email address:	**ProfessionalMSDS@dentsply.com**

1.4 Emergency Telephone Number:

Transportation Emergency Contact Number:	**800-424-9300 Chemtrec**

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:

Regulation (EC) No. 1272/2008
Hazard categories:
Aerosol: Aerosol 1
Hazard Statements:
Extremely flammable aerosol.
Pressurized container: May burst if heated.

2.2 Label Elements:

Signal Word: Danger!

H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.

Hazard statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3 Other Hazards: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures:

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
75-28-5	Isobutane			50 - < 100 %
	200-857-2	601-004-00-0	01-2119485395-27	
	Flam. Gas 1, Liquefied gas; H220 H280			
8042-47-5	White mineral oil (petroleum)			10 - < 20 %
	232-455-8		01-2119487078-27	
	Asp. Tox. 1; H304			
74-98-6	Propane			5 - < 10 %
	200-827-9	601-003-00-5	01-2119486944-21	
	Flam. Gas 1, Liquefied gas; H220 H280			
106-97-8	Butane			1 - < 3 %
	203-448-7	601-004-00-0	01-2119474691-32	
	Flam. Gas 1, Liquefied gas; H220 H280			

The exact concentration is being withheld as a trade secret.

Refer to Section 16 for the full text of the GHS and EU Classifications.

4. FIRST AID MEASURES

4.1 Description of First Aid Measures:	
Eye	Immediately flush eyes with large quantities of water, while holding the eyelids apart. Get medical attention if irritation persists.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation or symptoms develops, get medical attention. Launder clothing before re-use. Treat for frostbite if necessary.
Inhalation	Immediately remove victim to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration.
Ingestion	Ingestion is an unlikely route of exposure for aerosol products. If ingestion occurs, do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Immediately call local poison control center or go to an emergency department. Never give anything by mouth to an unconscious or drowsy person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed:
This product is an aerosol product. Spraying into the eyes may cause eye irritation or injury. May cause frostbite by skin contact. May be harmful if inhaled, causing dizziness, drowsiness, loss of consciousness, irregular heartbeat, and death. Aspiration into lungs during swallowing or vomiting may cause fatal or harmful lung damage.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed:
Medical attention may be required for eye exposure or inhalation. Get immediate medical attention for ingestion.
Note to Physicians (Treatment, Testing, and Monitoring): Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media:	Use carbon dioxide, foam or dry chemical extinguishing powder. Do not use water.

5.2 Special Hazards Arising from the Substance or Mixture:
This product is an extremely flammable aerosol. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Contents under pressure. Keep away from ignition sources and open flames. Containers may rupture or explode under fire conditions. Decomposition may release oxides of carbon.

5.3 Advice for Fire-Fighters:			
Fire Fighting Procedures:	Use water to cool exposed containers and structures and disperse flammable vapors.		
Precautions for Fire Fighters:	Firefighters should wear full emergency equipment and approved positive pressure self-contained breathing apparatus. Do not enter fire area without proper protection. Use shielding to protect from bursting cans. Do not allow run-off from firefighting to enter drains or water courses.		
Recommended Protective Equipment for Fire Fighters:			
EYES/FACE	**HANDS**	**RESPIRATORY**	**THERMAL**
			

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:
Evacuate spill area and keep unprotected personnel away. Eliminate all sources of ignition and ventilate area. Avoid contact with skin, eyes or clothing. Wear appropriate protective clothing as described in Section 8.

Recommended Personal Protective Equipment for Containment and Clean-up:			
EYES/FACE	**HANDS**	**RESPIRATORY**	**SKIN**
			

6.2 Environmental Precautions:
Prevent entry into sewers and waterways. Report releases as required by local and national authorities. Danger of explosion.
6.3 Methods and Material for Containment and Cleaning up:
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.
6.4 Reference to Other Sections:
Refer to Section 7 for safe handling, Section 8 for Personal Protective Equipment and Section 13 for Disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handing:
Advice on safe handling: Do not pierce or burn, even after use. **Advice on protection against fire and explosion:** Do not spray on naked flames or any incandescent material. Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F. Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapors can form explosive mixtures with air. **Further information on handling:** Avoid contact with skin and eyes.
7.2 Conditions for Safe Storage, Including Any Incompatibilities **Requirements for storage rooms and vessels:** Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. **Advice on storage compatibility:** Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances. **Further information on storage conditions**: Protect from frost. Protect against direct sunlight. Store in a cool dry place. Observe legal regulations and provisions.
7.3 Specific End Use (s): For professional use only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Occupational Exposure Limits:

Propane	United States	1000 ppm TWA OSHA PEL
	Germany	1000 ppm TWA, 4000 ppm STEL DFK MAK
	United Kingdom	None Established
	European Union	None Established
Butane	United States	1000 ppm STEL ACGIH TLV
	Germany	1000 ppm TWA, 4000 ppm STEL DFK MAK
	United Kingdom	600 ppm TWA, 750 ppm STEL UK WEL
	European Union	Belgium: 800 ppm TWA
Paraffin based neutral lubricating oil, hydrotreated, C15-C30	United States	5 mg/m3 (inhalable) TWA ACGIH TLV (as mineral oil) 5 mg/m3 TWA OSHA PEL(as oil mist, mineral)
	Germany	None Established
	United Kingdom	5 mg/m3 TWA UK WEL (as oil mist, mineral)
	European Union	None Established

Biological Exposure Limits: None Established

8.2 Exposure Controls:

Appropriate Engineering Controls: Use with adequate local exhaust ventilation to minimize exposures levels.

Individual Protection Measures (PPE):

Specific Eye/face Protection: Chemical safety glasses with side shields or chemical splash goggles are recommended to avoid eye contact.
Specific Skin Protection: Wear impervious gloves such as nitrile gloves to prevent prolonged skin contact.
Specific Respiratory Protection: None should be needed for normal use. If the exposure levels are excessive, an approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.
Specific Thermal Hazards: None required.

Recommended Personal Protective Equipment

EYES/FACE	HANDS	RESPIRATORY	SKIN
			

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance:	Light yellow liquid in an Aerosol can	**Explosive limits:**	**LEL:** 0.9 vol% **UEL:** 9.4 vol%
Odor:	Mild	**Vapor pressure (mmHg):**	8300 hPa @ 20°C (68°F)
Odor threshold:	Not applicable	**Vapor density:**	Not determined
pH:	Not applicable	**Relative density:**	0.85 g/cm³ DIN 51757
Melting/freezing point:	Not applicable	**Solubility(ies):**	Insoluble in water
Initial boiling point and boiling range:	-40°C (-40°F)	**Partition coefficient: n-octanol/water:**	Not applicable
Flash point:	80°C (176°F)	**Auto-ignition temperature:**	Not determined
Evaporation rate:	Not determined	**Decomposition temperature:**	Not determined
Flammability (solid, gas):	Not determined	**Viscosity:**	15,5 mm²/s
Explosive Properties:	Not determined	**Oxidizing Properties:**	Not an oxidizer

9.2 Other Information: None known.

10. STABILITY AND REACTIVITY

10.1 Reactivity: Flammable, Ignition hazard.

10.2 Chemical Stability: Stable under normal conditions and ambient temperatures.

10.3 Possibility of Hazardous Reactions: No known hazardous reactions.

10.4 Conditions to Avoid: Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapors can form explosive mixtures with air. Dropping containers may cause bursting.

10.5 Incompatible materials: Strong oxidizing agents. Do not mix with other chemicals.

10.6 Hazardous Decomposition Products: No known hazardous decomposition products.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:
Eyes: Contact with liquid may cause mild irritation with redness, tearing and stinging.

Skin: Contact with liquid may cause frostbite.
Ingestion: Ingestion can cause gastrointestinal irritation, nausea, and diarrhea. Fatal or harmful lung damage may occur during swallowing or vomiting.
Inhalation: Inhalation of large amounts may be harmful. Inhalation of high concentrations may cause temporary central nervous system depression with anesthetic effects such as dizziness, headache, incoordination, and loss of consciousness. Prolonged exposure to high concentrations may cause irregular heartbeat, cardiac arrest, and death.

Chronic Health Effects: None known.

Irritation: Based on available data, the classification criteria are not met.

Corrosivity: Based on available data, the classification criteria are not met.

Sensitization: Based on available data, the classification criteria are not met.

Carcinogenicity: None of the components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH or the EU CLP.

Mutagenicity: No data available. This product is not expected to cause mutagenic activity.

Medical Conditions Aggravated by Exposure:
Individuals with pre-existing central nervous or cardiovascular system diseases may be at increased risk from exposure.

Acute Toxicity Data:
Mineral Oil: Dermal Rabbit/Oral Rat LD50- >2000/>5000 mg/kg, Inhalation rat LC50- >5000 mg/l/4hr
Butane: Inhalation rat LC50- >658ppm 4hr (Source: GESTIS)

Reproductive Toxicity Data: No data available. This product is not expected to cause adverse reproductive effects.

Specific Target Organ Toxicity (STOT):
Single Exposure: Based on available data, the classification criteria are not met.
Repeated Exposure: Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

12.1 **Toxicity:** The product is not: Ecotoxic.

CAS No	Chemical Name	Log Pow
75-28-5	Isobutane	2.8
8042-47-5	White mineral oil (petroleum)	>3.5
74-98-6	Propane	2.35
106-97-8	Butane	2.89

12.2 Persistence and Degradability: No data is currently available

12.3 Bio-accumulative Potential: No data is currently available

12.4 Mobility in Soil: No data is currently available

12.5 Results of PBT and vPvB Assessment: Not required

12.6 Other Adverse Effects: No information available. Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Regulations: Dispose in accordance with all national and local regulations.
Properties (Physical/Chemical) Affecting Disposal: Empty containers retain product residues and can be hazardous. Follow all SDS precautions when handling empty containers.
Waste Treatment Recommendations: Dispose in accordance with national and local regulations. Completely emptied packages can be recycled.

14. TRANSPORT INFORMATION

Land transport (ADR/RID)
14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2.1
Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0
Transport category: 2
Tunnel restriction code: D

Inland waterways transport (ADN)
14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2.1
Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0

Marine transport (IMDG)
14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
Hazard label: 2.1
Marine pollutant: no
Special Provisions: 63, 190, 277, 327, 344, 959
Limited quantity: 1000 mL
Excepted quantity: E0
EmS: F-D, S-U

Air transport (ICAO-TI/IATA-DGR)
14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS, flammable
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
Hazard label: 2.1
Special Provisions: A145 A167 A802
Limited quantity Passenger: 30 kg G
Passenger LQ: Y203
Excepted quantity: E0

IATA-packing instructions - Passenger: 203
IATA-max. quantity - Passenger: 75 kg
IATA-packing instructions - Cargo: 203
IATA-max. quantity - Cargo: 150 kg

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: No

14.6 Special Precautions for User: Not applicable.

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:

U.S. Federal Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

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

Clean Water Act (CWA): This material is not regulated under the Clean Water Act.

Clean Air Act (CAA): This material is not regulated under the Clean Air Act.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Immediate Hazard:	**Yes**	**Pressure Hazard:**	**Yes**
Delayed Hazard:	**No**	**Reactivity Hazard:**	**No**
Fire Hazard:	**Yes**		

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372):

Components	C.A.S. #	WT %
None		

State Regulations

California: This product contains the following substances known to the state of California to cause cancer and/or reproductive toxicity:

Components	C.A.S. #	WT %
None		

International Regulations

Canadian Workplace Hazardous Materials Information System (WHMIS): Class A (Compressed Gas), Class B (Flammable/Combustible Material)

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic

Substances list (DSL).

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

European Inventory of Existing Chemicals (EINECS): All of the components in this product are listed on the EINECS inventory.

EU REACH: All components requiring registration have been pre-registered.

Australian Inventory of Chemical Substances: All of the components in this product are listed on the AICS for Australia.

China Inventory of Existing Chemicals and Chemical Substances: All of the components in this product are listed on the IECSC for China.

Japanese Existing and New Chemical Substances: All of the components in this product are listed on the Japanese ENCS list.

Korean Existing Chemicals List: All of the components in this product are listed on the KECL for Korea.

New Zealand Inventory of Chemicals: All of the components in this product are listed on the NZIoC for New Zealand.

Philippine Inventory of Chemicals and Chemical Substances: All of the components in this product are listed on the PICCS.

15.2 Chemical Safety Assessment: None required.

16. OTHER INFORMATION

HMIS Hazard Rating:
Health – 2 Flammability – 2 Physical Hazard– 1

Full text of Classification abbreviations used in Section 2 and 3:
F+ Extremely flammable
Xn Harmful
R12 Extremely flammable
R65 Harmful: may cause lung damage if swallowed
Asp Tox 1 Aspiration Toxicity Category 1
Flam Aerosol Cat 1 Flammable Aerosol Category 1
Flam Gas 1 Flammable Gas Category1
Liq Gas Liquefied Gas
H220 Extremely flammable gas
H222 Extremely flammable aerosol
H280 Contains gas under pressure; may explode if heated
H304 May be fatal if swallowed and enters airways

Data Sources: US NLM ChemID Plus and HSDB, Substance SDS for components, IUCLID Dataset EU Chemical Bureau, ESIS, Country websites for occupational exposure limits.