

Inhalation	Remove to fresh air.
Ingestion	If swallowed, DO NOT induce vomiting. Drink 1 to 2 glasses of water. DO NOT give bicarbonates. Contains sulfamic acid. Get medical attention IMMEDIATELY.
Notes to physician	If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Not flammable by OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Carbon dioxide. Water spray. Dry chemical. Foam.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulphur.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. Use water spray to reduce vapors or divert vapor cloud drift.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
Storage	Keep out of the reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Citric Acid	ACGIH-TLV TWA: 10 mg/m ³ OSHA-PEL TWA: 10 mg/m ³

Sulfamic acid	ACGIH-TLV Not established OSHA-PEL Not established
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Engineering controls General ventilation normally adequate.

Personal protective equipment

Eye / face protection	Safety glasses recommended but not required. Emergency responders should wear full eye and face protection.
Hand protection	Rubber gloves. Confirm with a reputable supplier first. Emergency responders should wear impermeable gloves.
Skin and body protection	As required by employer code. Emergency responders should wear impermeable clothing and footwear when responding to a situation where contact with the liquid is possible.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Emergency responders should wear self-contained breathing apparatus (SCBA) to avoid inhalation of vapours generated by this product during a spill or other clean-up operations.
General hygiene considerations	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Clear.
Color	light green
Form	aqueous solution
Odor	Sweet / Slight
Odor threshold	Not available
Physical state	Liquid
pH	<1 (Acidic)
Freezing point	Not available
Pour point	Acidic
Boiling point	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	1.12 (Water=1)
Octanol/water coefficient	Not available
Solubility (H₂O)	Complete
Auto-ignition temperature	Not available
Pour point	Acidic
Viscosity	Water thin

10. Stability and Reactivity

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with anything but water. Do not mix with other chemicals. Hazardous vapours may be produced when mixed with chlorinated detergents or sanitizers.
Incompatible materials	Acids. Caustics.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulphur.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Citric Acid	Not available
Sulfamic acid	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Citric Acid	5040 mg/kg mouse; 3000 mg/kg rat
Sulfamic acid	1312 mg/kg mouse; 1050 mg/kg guinea pig; 3160 mg/kg rat

Effects of acute exposure

Eye	May cause severe irritation.
Skin	Substance causes moderate skin irritation.
Inhalation	Avoid prolonged breathing of vapor.
Ingestion	May be harmful if swallowed. Moderately toxic orally.
Sensitization	The finished product is not expected to have chronic health effects.
Chronic effects	The finished product is not expected to have chronic health effects.
Carcinogenicity	The finished product is not expected to have chronic health effects.
Mutagenicity	The finished product is not expected to have chronic health effects.
Reproductive effects	The finished product is not expected to have chronic health effects.
Teratogenicity	The finished product is not expected to have chronic health effects.
Synergistic Materials	Not available

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Fish Species Data

Citric Acid	77-92-9	96 Hr LC50 Lepomis macrochirus: 1516 mg/L [static]
Sulfamic acid	5329-14-6	96 Hr LC50 Pimephales promelas: 14.2 mg/L [static]

Ecotoxicity - Microtox Data

Citric Acid	77-92-9	15 Min EC50 Photobacterium phosphoreum: 14 mg/L
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Ecotoxicity - Water Flea Data

Citric Acid	77-92-9	72 Hr EC50 Daphnia magna: 120 mg/L
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Environmental effects	Not available
Aquatic toxicity	Not available
Persistence / degradability	Not available
Bioaccumulation / accumulation	Not available
Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

UN3265, Corrosive Liquid, Acidic, Organic, NOS (Citric Acid, Sulfamic Acid)
Class 8, PG II, Limited Quantity Re-classed as Consumer Commodity ORM-D

Transportation of Dangerous Goods (TDG - Canada)

UN3265, Corrosive Liquid, Acidic, Organic, NOS (Citric Acid, Sulfamic Acid)
Class 8, PG II, Limited Quantity Re-classed as Consumer Commodity/Limited Quantity

IMDG (Marine Transport)

UN3265, Corrosive Liquid, Acidic, Organic, NOS (Citric Acid, Sulfamic Acid)
Class 8, PG II, Limited Quantity

UN3265, Corrosive Liquid, Acidic, Organic, NOS (Citric Acid, Sulfamic Acid)
Class 8, PG II

15. Regulatory Information

US Federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.	
	CERCLA/SARA Hazardous Substances - Not applicable.	
Occupational Safety and Health Administration (OSHA)		
29 CFR 1910.1200 hazardous chemical	Yes	
CERCLA (Superfund) reportable quantity	None	
Superfund Amendments and Reauthorization Act of 1986 (SARA)		
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No	
Section 302 extremely hazardous substance	No	
Section 311 hazardous chemical	Yes	
Clean Air Act (CAA)	Not available	
Clean Water Act (CWA)	Not available	
State regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.	
U.S. - New Jersey - Right to Know Hazardous Substance List		
Sulfamic acid	5329-14-6	sn 1770

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer	This product should only be used as directed on the label and for the purpose intended. To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.
Further information	27443-36327 - DIP-IT® Automatic Drip Coffeemaker Cleaner Liquid - 7oz. - 377853
Issue date	18-Nov-2009
Effective date	15-Nov-2009

Prepared by
Other information

Reckitt Benckiser Regulatory Department 800-333-3899

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.