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**1. IDENTIFICATION**

**Product name:** BONDERITE S-AD 213 SF ACHESON ACID INHIBITOR ADDITIVE known as RODINE 213 SF  
**IDH number:** 1393855  
**Product type/Recommended use:** Corrosion inhibitor  
**Restriction of Use:** None identified  
**Region:** Canada  
**Company address:** Henkel Canada Corporation  
 Meadowpine Boulevard 2515  
 Mississauga, Ontario L5N 6C3  
**Contact information:**  
 Telephone: +1 (905) 814-6511  
 MEDICAL EMERGENCY Phone: Poison Control Center  
 1-877-671-4608 (toll free) or 1-303-592-1711  
 TRANSPORT EMERGENCY Phone: CHEMTREC  
 1-800-424-9300 (toll free) or 1-703-527-3887  
 MEDICAL EMERGENCY Phone: Poison Control Center  
 1-877-671-4608 (toll free) or 1-303-592-1711  
 TRANSPORT EMERGENCY Phone: CHEMTREC  
 1-800-424-9300 (toll free) or 1-703-527-3887  
 Internet: www.henkelna.com

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**DANGER:** H227 - COMBUSTIBLE LIQUID.  
 H302 - HARMFUL IF SWALLOWED.  
 H315 - CAUSES SKIN IRRITATION.  
 H318 - CAUSES SERIOUS EYE DAMAGE.  
 H331 - TOXIC IF INHALED.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	4
ACUTE TOXICITY ORAL	4
ACUTE TOXICITY INHALATION	3
SKIN IRRITATION	2
SERIOUS EYE DAMAGE	1

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:**  
 P210 - Keep away from heat, sparks, open flames, hot surfaces - no smoking.  
 P261 - Avoid breathing mist/vapours.  
 P264 - Wash affected area thoroughly after handling.  
 P270 - Do not eat, drink or smoke when using this product.  
 P271 - Use only outdoors or in a well-ventilated area.  
 P280 - Wear protective gloves, clothing, eye and face protection.

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**Response:** P301+P312+P330 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P304+P340+P311 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332+P313 - If skin irritation occurs: Get medical attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P370+P378 - In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.

**Storage:** P501 - Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

**Disposal:**

**Other hazards** Not available.

Classification complies with Canadian Hazardous Products Regulations and is consistent with the provision of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Weight %*
2-Butoxyethanol	111-76-2	30 - 60
Alcohols, C16-18 and C18-unsatd., ethoxylated	68920-66-1	10 - 30
Acetic acid, hydroxy-, compds. with acetophenone-formaldehyde-(1R,4aS,10aR)-1,2,3,4,4a,9,10,10a-octahydro-1,4a-dimethyl-7-(1-methyle	683748-05-2	10 - 30
2-Propyn-1-ol, compd. with 2-methyloxirane	38172-91-7	5 - 10
Acetophenone	98-86-2	0.1 - 1
Glycolic acid	79-14-1	0.1 - 1

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

#### First Aid Measures by likely routes of exposure

**Inhalation:** If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

**Skin contact:** Remove contaminated clothing and footwear. For skin contact, flush with large amounts of water. Seek immediate medical attention.

**Eye contact:** In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

**Ingestion:** Get immediate medical attention. Do not induce vomiting.

**Most important symptoms and effects (acute and delayed):** The most important known symptoms and effects, both acute and delayed, are described in Section 11: Toxicological Information.

**Indication of any immediate medical attention / special treatment needed:** Treat symptomatically and supportively.

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Foam, dry chemical or carbon dioxide. Water may be an ineffective extinguishing medium.
<b>Improper extinguishing agents:</b>	Not available.
<b>Special firefighting procedures:</b>	Wear full protective clothing. Wear self-contained breathing apparatus.
<b>Unusual fire or explosion hazards:</b>	Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition.
<b>Hazardous combustion products:</b>	Irritating and toxic gases or fumes may be released during a fire.

## 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Wear appropriate protective equipment and clothing during clean-up. Prevent further leakage or spillage if safe to do so. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors or mists of this product. Do not take internally. For industrial use only. Ground and bond all equipment as required (when transferring products).
<b>Storage:</b>	For safe storage, store between 50 °F (10°C) and 104 °F (40°C) Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Do not pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do not reuse empty containers.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
2-Butoxyethanol	20 ppm TWA	50 ppm (240 mg/m <sup>3</sup> ) PEL (SKIN)	None	None

<b>Engineering controls:</b>	Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.
<b>Respiratory protection:</b>	If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.
<b>Eye/face protection:</b>	Wear chemical goggles; face shield (if splashing is possible).

**Skin protection:**

Wear impervious gloves for prolonged contact. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state:</b>	Liquid
<b>Color:</b>	Amber
<b>Odor:</b>	Aromatic
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	3.5 - 5.0 (1% solution)
<b>Vapor pressure:</b>	20 mm hg (20 °C (68°F)) calculated
<b>Boiling point/range:</b>	> 200 °F (> 93.3 °C)calculated
<b>Melting point/ range:</b>	0 °F (-17.8 °C)
<b>Density/Relative density:</b>	0.98 - 1.00 at 68 °F (20°C)
<b>Relative vapor density:</b>	Not determined
<b>Flash point:</b>	189 °F (87.22 °C) Tagliabue closed cup
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not determined
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not determined
<b>Solubility:</b>	Complete Water
<b>Partition coefficient n-octanol/water (logarithmic value):</b>	Not determined
<b>VOC content:</b>	45.9 % EPA Method 24
<b>Dynamic viscosity:</b>	Not available.
<b>Kinematic viscosity:</b>	Not available.
<b>Particle characteristics:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

**10. STABILITY AND REACTIVITY**

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Upon decomposition, this product may yield oxides of nitrogen and ammonia, carbon dioxide, carbon monoxide and other low molecular weight hydrocarbons.
<b>Incompatible materials:</b>	This product may react with strong oxidizing agents. This product may react with strong reducing agents. This product may react with strong alkalies.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Store away from incompatible materials.

**11. TOXICOLOGICAL INFORMATION**

<b>Likely routes of exposure:</b>	Skin, Inhalation, Eyes, Ingestion
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**Potential Health Effects/Symptoms**

**Inhalation:** This product is irritating to the respiratory system. Repeated inhalation may be harmful; lung irritation and serious central nervous system disorders may result. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.

**Skin contact:** Contact with liquid may produce severe skin irritation including redness and inflammation. A component in this product may be absorbed through the skin, especially if skin is damaged.

**Eye contact:** Contact can cause moderate to severe irritation and possible injury to the eyes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

**Ingestion:** Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful or fatal if swallowed.

Hazardous Component(s)	LD50s and LC50s
2-Butoxyethanol	Oral LD50 (Rat) = 560 mg/kg Oral LD50 (Mouse) = 1.2 g/kg Oral LD50 (Rabbit) = 0.32 g/kg Oral LD50 (Rat) = 1.48 g/kg Oral LD50 (Mouse) = 1,519 mg/kg Dermal LD50 (Rabbit) = 400 mg/kg Inhalation LC50 (Rat, 4 h) = 523 ppm Inhalation LC50 (Rat, 4 h) = 545 ppm
Alcohols, C16-18 and C18-unsatd., ethoxylated	Inhalation LC50 (Rat, 4 h) = > 1.6 mg/l
Acetic acid, hydroxy-, compds. with acetophenone-formaldehyde-(1R,4aS,10aR)-1,2,3,4,4a,9,10,10a-octahydro-1,4a-dimethyl-7-(1-methyle	None
2-Propyn-1-ol, compd. with 2-methyloxirane	None
Acetophenone	Oral LD50 (Rat) = 0.81 g/kg Oral LD50 (Rat) = 3.0 g/kg
Glycolic acid	Oral LD50 (Rat) = 1,950 mg/kg Inhalation LC50 (Rat, 4 h) = 14 mg/l Inhalation LC50 (Rat, 4 h) = 7.7 mg/l Inhalation LC50 (Rat, 4 h) = > 5.2 mg/l Inhalation LC50 (Rat, 4 h) = 3.6 mg/l

Hazardous Component(s)	Immediate Health Effects	Delayed Health Effects	Chronic Health Effects
2-Butoxyethanol	Irritant		Blood Central nervous system Kidney Liver
Alcohols, C16-18 and C18-unsatd., ethoxylated	Irritant	Allergen	Kidney
Acetic acid, hydroxy-, compds. with acetophenone-formaldehyde-(1R,4aS,10aR)-1,2,3,4,4a,9,10,10a-octahydro-1,4a-dimethyl-7-(1-methyle			
2-Propyn-1-ol, compd. with 2-methyloxirane			
Acetophenone	Irritant		Blood Central nervous system Eyes
Glycolic acid	Corrosive Irritant		Kidney Metabolic Respiratory

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
2-Butoxyethanol	No	No	No
Alcohols, C16-18 and C18-unsatd., ethoxylated	No	No	No
Acetic acid, hydroxy-, compds. with acetophenone-formaldehyde-(1R,4aS,10aR)-1,2,3,4,4a,9,10,10a-octahydro-1,4a-dimethyl-7-(1-methyle	No	No	No
2-Propyn-1-ol, compd. with 2-	No	No	No

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methyloxirane			
Acetophenone	No	No	No
Glycolic acid	No	No	No

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any packaging.

### Canada Transportation of Dangerous Goods - Ground

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### Water Transportation (IMO/IMDG)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

## 15. REGULATORY INFORMATION

### Canada Regulatory Information

**CEPA DSL/NDL Status:** One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.

### United States Regulatory Information

**TSCA 8 (b) Inventory Status:** All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.

## 16. OTHER INFORMATION

**This safety data sheet contains changes from the previous version in sections:** This Safety Data Sheet contains changes from the previous version in Section(s): 2, 3, 8, 9, 11

**Prepared by:** Regulatory Affairs

**Issue date:** 06/05/2025

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