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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier			
Product Identity	Zap		
Alternate Names	Formula 519		
1.2. Relevant identified uses of the substance or mixted	ure and uses advised against		
Intended use	See Technical Data Sheet.		
Application Method	See Technical Data Sheet.		
1.3. Details of the supplier of the safety data sheet			
Company Name	Citation Equipment, INC		
	4319 Crittenden Drive		
	Louisville, KY 40209. USA		
For Chemical Emergency:			

24 hour Emergency Telephone No. **Customer Service: Citation Equipment, INC**

2. Hazard identification of the product

502-744-7485

502-367-2239

2.1. Classification of the substance or mixture

Skin Irrit. 3;H316 Causes mild skin irritation. (Not adopted by US OSHA) Eye Irrit. 2;H319 Causes serious eye irritation.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

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Warning

H316 Causes mild skin irritation. H319 Causes serious eye irritation.

[Prevention]:

P264 Wash thoroughly after handling. P280 Wear protective gloves / eye protection / face protection. [Response]:

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P332+313 If skin irritation occurs: Get medical advice / attention.
P337+313 If eye irritation persists: Get medical advice / attention. **[Storage]:**No GHS storage statements **[Disposal]:**No GHS disposal statements

3. Composition/information on ingredients

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This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Nonylphenol polyethoxylate CAS Number: 0009016-45-9	1.0 - 10	Eye Dam. 2A;H319 Skin Irrit. 2;H315 Aquatic Chronic 2;H411 Acute Tox. 4;H302	[1][3]
Sodium silicate CAS Number: 0001344-09-8	1.0 - 10	Acute Tox. 4;H302 Skin Irrit. 2;H315 Eye Dam. 1;H318	[1]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. Give Large quantities of water, if available, 1 part of vinegar to 1 part water or fruit juice.
4.2. Most important sym	ptoms and effects, both acute and delayed
Overview	Inhalation: Inhalation of high dust concentrations is irritation to nose and throat. Eyes: May cause eye irritation upon direct contact. Skin: Prolonged contact with skin may cause some irritation. Ingestion: Harmful if swallowed.
	See section 2 for further details.
Eyes Skin	Causes serious eye irritation. Causes mild skin irritation. (Not adopted by US OSHA)

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5. Fire-fighting measures

5.1. Extinguishing media

Not applicable

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: None

5.3. Advice for fire-fighters

None

ERG Guide No.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Shovel up and containerize material followed by flushing with large quantities of water to dilute acid.

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7. Handling and storage

7.1. Precautions for safe handling

Caution! Contains sodium hydroxide. Do not get in eyes, on skin, or clothing. Do not take internally. When handling, wear gloves and eye protection. In case of contact, flush skin and or eyes with water for 15 minutes and consult a physician if irritation persists. If ingested, do not induce vomiting. See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Strong acids

Store in cool dry area.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure				
CAS No.	Ingredient	Source	Value	
0001344-09-8	Sodium silicate	OSHA	No Established Limit	
		ACGIH	No Established Limit	
	NIOSH	No Established Limit		
		Supplier	No Established Limit	
0009016-45-9 Nonylphenol polyethoxylate		OSHA	No Established Limit	
	ACGIH	No Established Limit		
	NIOSH	No Established Limit		
		Supplier	No Established Limit	

Carcinogen Data

CAS No.	Ingredient	Source	Value
0001344-09-8	Sodium silicate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0009016-45-9	Nonylphenol polyethoxylate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No

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IARC Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls Respiratory Eyes Skin Engineering Controls	None under normal conditions Chemical safety glasses. Wear overalls to keep skin contact to a minimum. Use neoprene or rubber gloves or PVC. Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. Physical and chemical properties

See section 2 for further details. - [Prevention]:

Red Liquid		
Cherry		
Not Measured		
Not Measured		
Not Measured		
212F		
Not Measured		
Not Measured		
Not Applicable		
Lower Explosive Limit: Not Measured		
Upper Explosive Limit: Not Measured		
20 (mm Hg)		
Not Measured		
1.05		
100%		
Not Measured		

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10. Stability and reactivity

10.1. Reactivity Hazardous Polymerization will not occur. 10.2. Chemical stability Stable under normal circumstances. 10.3. Possibility of hazardous reactions No data available. 10.4. Conditions to avoid No data available. 10.5. Incompatible materials Strong acids. 10.6. Hazardous decomposition products None.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Nonylphenol polyethoxylate - (9016-45-9)	2,000.00, Rat -	No data	No data	No data	No data
	Category: 4	available	available	available	available
Sodium silicate - (1344-09-8)	>2,000.00, Rat -	No data	No data	No data	No data
	Category: 5	available	available	available	available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)		Not Applicable
Acute toxicity (dermal)		Not Applicable
Acute toxicity (inhalation)		Not Applicable
Skin corrosion/irritation	3	Causes mild skin irritation. (Not adopted by US

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		OSHA)
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization		Not Applicable
Skin sensitization		Not Applicable
Germ cell mutagenicity		Not Applicable
Carcinogenicity		Not Applicable
Reproductive toxicity		Not Applicable
STOT-single exposure		Not Applicable
STOT-repeated exposure		Not Applicable
Aspiration hazard		Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data. Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Nonylphenol polyethoxylate - (9016-45-9)	1.30, Lepomis macrochirus	4.80, Daphnia pulex	12.00 (96 hr), Pseudokirchneriella subcapitata
Sodium silicate - (1344-09-8)	301.00, Lepomis macrochirus	216.00, Daphnia magna	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

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13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA		
14.1. UN number	Not Applicable	Not Regulated	Not Regulated		
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated		
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable DOT Label:	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable		
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable		
14.5. Environmental hazards					
IMDG Mar	ine Pollutant: No				
14.6. Special precautions for user					
No f	urther information				

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	D2B
US EPA Tier II Hazards	Fire: No
Sudden Release of Pressure: No	
Reactive: No	
Immediate (Acute): Yes	
Delayed (Chronic): No	
EPCRA 311/312 Chemicals and RQs: (No Product Ingredients Listed)	
EPCRA 302 Extremely Hazardous : (No Product Ingredients Listed)	
EPCRA 313 Toxic Chemicals: (No Product Ingredients Listed)	
Proposition 65 - Carcinogens (>0.0%):	

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(No Product Ingredients Listed)

Proposition 65 - Developmental Toxins (>0.0%): (No Product Ingredients Listed)

Proposition 65 - Female Repro Toxins (>0.0%): (No Product Ingredients Listed)

- Proposition 65 Male Repro Toxins (>0.0%): (No Product Ingredients Listed)
- N.J. RTK Substances (>1%) : (No Product Ingredients Listed)

Penn RTK Substances (>1%) : (No Product Ingredients Listed)

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

- H315 Causes skin irritation.
- H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

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