SDS Revision Date:

10/30/2014

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

1.1. Product identifier			
Product Identity	Blast Off		
Alternate Names	Blast Off		
1.2. Relevant identified uses of the substance or mixt	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		
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

Acute Tox. 4;H302	Harmful if swallowed.
Skin Corr. 1A;H314	Causes severe skin burns and eye damage.
Eye Dam. 1;H318	Causes serious eye damage.

2.2. Label elements

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



H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

SDS Revision Date:

10/30/2014

[Prevention]:

P260 Do not breathe mist / vapors / spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P363 Wash contaminated clothing before reuse.

[Storage]:

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

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
Potassium hydroxide. CAS Number: 0001310-58-3	10 - 25	Acute Tox. 4;H302 Skin Corr. 1A;H314	[1][2]
Disodium metasilicate CAS Number: 0006834-92-0	1.0 - 10	Skin Corr. 1B;H314 STOT SE 3;H335	[1]
Sodium gluconate CAS Number: 0000527-07-1	1.0 - 10		[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.

SDS Revision Date:	10/30/2014
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	Do NOT induce vomiting. Rinse mouth and slowly drink several glasses of water. Call a physician. Do NOT give anything by mouth to an unconscious or convulsing person.
4.2. Most important syr	nptoms and effects, both acute and delayed
Overview	Acute (Immediate): Ingestion may cause death. Chronic (Delayed Effect): Avoid contact with eyes. Signs and Symptoms of Exposure: Burning and itching of exposed flesh. Medical Conditions Generally Aggravated by Exposure: Open wounds, rashes. Routes of Entry: Inhalation: None Eyes: Avoid Skin: Avoid Ingestion: Avoid See section 2 for further details.
Eyes	Causes serious eye damage.
Skin	Causes severe skin burns and eye damage.
Ingestion	Harmful if swallowed.

5. Fire-fighting measures

5.1. Extinguishing media

As appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

5.3. Advice for fire-fighters

None

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.

SDS Revision Date:

10/30/2014

6.3. Methods and material for containment and cleaning up

Dilution with water neutralize with Acetic Acid and flushed to sewer with a large amount of water.

7. Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Containers should be stored in a cool, dry, well-ventilated area. Exercise due caution to prevent damage to or leakage from the container. Keep containers closed when not in use.

Incompatible materials: Incompatible with strong oxidizers, leather and halogenated compounds. Product will react with 'soft' metals such as aluminum, tin, magnesium, and zinc releasing flammable hydrogen gas.

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	
0000527-07-1	Sodium gluconate	OSHA	No Established Limit	
		ACGIH	No Established Limit	
		NIOSH	No Established Limit	
		Supplier	No Established Limit	
0001310-58-3 Potassium hydroxide.	OSHA	No Established Limit		
	ACGIH	Ceiling: 2 mg/m3		
	NIOSH	C 2 mg/m3		
		Supplier	No Established Limit	
0006834-92-0	Disodium metasilicate	OSHA	No Established Limit	
		ACGIH	No Established Limit	
		NIOSH	No Established Limit	
		Supplier	ACHAN TLV/OSHA 2mg/m ³ PEL 2mg/m ³	

Carcinogen Data

CAS No.	Ingredient	Source	Value	
0000527-07-1	Sodium gluconate	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;	

SDS Revision Date:

10/30/2014

0001310-58-3	Potassium hydroxide.	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;	
0006834-92-0	Disodium metasilicate	OSHA	SHA Select Carcinogen: No	
		NTP Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	

8.2. Exposure controls	
Respiratory	NIOSH approved self contained positive pressure apparatus.
Eyes	Protective safety glasses recommended.
Skin	Protective rubber gloves. Rubber apron or suit.
Engineering Controls	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.
See section 2 for further	details - [Prevention]

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

9. Physical and chemical properties

Appearance	Liquid
Odor	No odor
Odor threshold	Not Measured
рН	Not Measured
Melting point / freezing point	N/A
Initial boiling point and boiling range	120 C
Flash Point	N/A
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: N/A
Upper/lower flammability or explosive limits	Lower Explosive Limit: N/A Upper Explosive Limit: N/A
Upper/lower flammability or explosive limits Vapor pressure (Pa)	•
	Upper Explosive Limit: N/A
Vapor pressure (Pa)	Upper Explosive Limit: N/A N/A
Vapor pressure (Pa) Vapor Density	Upper Explosive Limit: N/A N/A N/A
Vapor pressure (Pa) Vapor Density Specific Gravity	Upper Explosive Limit: N/A N/A 1.3 (H2O = 1)
Vapor pressure (Pa) Vapor Density Specific Gravity Solubility in Water	Upper Explosive Limit: N/A N/A 1.3 (H2O = 1) 100%
Vapor pressure (Pa) Vapor Density Specific Gravity Solubility in Water Partition coefficient n-octanol/water (Log Kow)	Upper Explosive Limit: N/A N/A 1.3 (H2O = 1) 100% Not Measured

SDS Revision Date:

10/30/2014

Viscosity (cSt)

9.2. Other information

No other relevant information.

10. Stability and reactivity

Not Measured

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Incompatible with strong oxidizers, leather and halogenated compounds. Product will react with 'soft' metals such as aluminum, tin, magnesium, and zinc releasing flammable hydrogen gas.

10.4. Conditions to avoid

Excessive heat and open flame.

Sealed containers may develop explosive pressures under fire conditions. Use water to cool containers exposed to fire.

10.5. Incompatible materials

Incompatible with strong oxidizers, leather and halogenated compounds. Product will react with 'soft' metals such as aluminum, tin, magnesium, and zinc releasing flammable hydrogen gas.

10.6. Hazardous decomposition products

Potassium oxides

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
Potassium hydroxide (1310-58-3)	365.00, Rat -	No data	No data	No data	No data
	Category: 4	available	available	available	available
Disodium metasilicate - (6834-92-0)	1,153.00, Rat -	No data	No data	No data	No data
	Category: 4	available	available	available	available
Sodium gluconate - (527-07-1)	No data available	No data available	No data available	No data available	No data 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).

SDS Revision Date:

10/30/2014

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)		Not Applicable
Acute toxicity (inhalation)		Not Applicable
Skin corrosion/irritation	1A	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
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
Potassium hydroxide (1310-58-3)	Not Available	Not Available	Not Available
Disodium metasilicate - (6834-92-0)	210.00, Danio rerio	33.53, Ceriodaphnia dubia	400.00 (72 hr), Pseudokirchneriella subcapitata
Sodium gluconate - (527-07-1)	Not Available	Not Available	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 no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

10/30/2014

13. Disposal considerations

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 Marine 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 E		
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 (lbs):			
Potassium hydroxide. (1,000.00)			
EPCRA 302 Extremely Hazardous : (No Product Ingredients Listed)			
EPCRA 313 Toxic Chemicals: (No Product Ingredients Listed)			

SDS Revision Date:

10/30/2014

Proposition 65 - Carcinogens (>0.0%): (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%):

Potassium hydroxide.

Penn RTK Substances (>1%):

Potassium hydroxide.

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.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

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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