

# FLASH 21B

## SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	FLASH 21B
<b>Product Family</b>	Iron Solution
<b>Recommended Use</b>	Hydrocarbon gelling agent.
<b>Manufacturer</b>	Perimeter Solutions Canada Ltd., 3060 Airport Road , Kamloops , British Columbia, V2B 7X2, 250-554-3530
<b>Emergency Phone No.</b>	CANUTEC, 613-996-6666 or *666 on a cellular phone (Canada Only), 24 Hours / Day

## SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).

### Classification

Acute toxicity (Oral) - Category 4; Skin corrosion - Category 1; Serious eye damage - Category 1; Specific target organ toxicity (repeated exposure) - Category 2

### Label Elements



Signal Word:

Danger

Hazard Statement(s):

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):

Prevention:

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands and skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P312	IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.

---

Product Identifier: FLASH 21B - Ver. 3  
Date of Preparation: April 28, 2017  
Date of Last Revision: April 07, 2016

Storage:  
P405 Store locked up.  
Disposal:  
P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
FERRIC SULFATE	10028-22-5	40 - 70		
Ethanol, 2-amino-, sulfate (salt)	56633-27-3	7 - 13		
Ethylene glycol	107-21-1	7 - 13		
BENZALKONIUM CHLORIDE	8001-54-5	5 - 10		
Ethanol	64-17-5	0.5 - 1.5		

#### Notes

Concentrations are expressed in % weight/weight.

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Poisons Information Centre: 13 11 26. Seek immediate medical attention.

##### Skin Contact

Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Immediately call a Poison Centre or doctor. Poisons Information Centre: 13 11 26.

##### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor. Poisons Information Centre: 13 11 26.

##### Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor. Poisons Information Centre: 13 11 26.

#### Most Important Symptoms and Effects, Acute and Delayed

If on skin:

Contact can cause pain, redness, burns, and blistering. Permanent scarring can result.

If in eyes:

Contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result.

If swallowed:

Can irritate the mouth, throat and stomach. Can burn the lips, tongue, throat and stomach.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

##### Unsuitable Extinguishing Media

Product Identifier: FLASH 21B - Ver. 3

Date of Preparation: April 28, 2017

Date of Last Revision: April 07, 2016

Page 02 of 07

None known.

### Specific Hazards Arising from the Product

Can ignite if strongly heated. During a fire, irritating/toxic gases such as carbon monoxide, carbon dioxide, formaldehyde and other toxic and irritating gases or fumes and acrid smoke may be generated. Closed containers may rupture violently and suddenly release large amounts of product when exposed to fire or excessive heat for a sufficient period of time.

### Special Protective Equipment and Precautions for Fire-fighters

Fight fire from a safe distance or a protected location. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Handle in accordance with good industrial hygiene and safety practice. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

### Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. After cleaning, flush away traces with water. Collect washing for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Only use where there is adequate ventilation. Wear personal protective equipment to avoid direct contact with this chemical. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Keep containers tightly closed when not in use or empty.

### Conditions for Safe Storage

Store in an area that is: well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in a dry place. Do not store in unlabeled containers. Store out of direct sunlight.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
FERRIC SULFATE	1 mg/m <sup>3</sup>	Not established	Not established	Not established	Not established	Not established
Ethanol, 2-amino-, sulfate (salt)	Not established	Not established	Not established	Not established	Not established	Not established
BENZALKONIUM CHLORIDE	Not established	Not established	Not established	Not established	Not established	Not established
Ethylene glycol	Not established	100 mg/m <sup>3</sup> A4	Not established	50 ppm	Not established	Not established
Ethanol	Not established	Not established	Not established	Not established	Not established	Not established

### Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

Product Identifier: FLASH 21B - Ver. 3

Date of Preparation: April 28, 2017

Date of Last Revision: April 07, 2016

Page 03 of 07

**Eye/Face Protection**

Do not get in eyes. Wear chemical safety goggles and face shield when contact is possible.

**Skin Protection**

Prevent all skin contact. Consideration must be given both to durability as well as permeation resistance. Chemically resistant gloves should be used.

**Respiratory Protection**

Wear a NIOSH approved air-purifying respirator with an organic vapour cartridge when airborne concentrations are excessive.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****Basic Physical and Chemical Properties**

<b>Appearance</b>	Amber liquid.
<b>Odour</b>	Not available
<b>Odour Threshold</b>	Not available
<b>pH</b>	1.89
<b>Melting Point/Freezing Point</b>	Not available (melting); Not available (freezing)
<b>Initial Boiling Point/Range</b>	Not available
<b>Flash Point</b>	> 93.3 °C (199.9 °F) (closed cup)
<b>Evaporation Rate</b>	Not available
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	1.395
<b>Solubility</b>	Soluble in water
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic)
<b>Other Information</b>	
<b>Physical State</b>	Liquid

**SECTION 10. STABILITY AND REACTIVITY****Chemical Stability**

Normally stable.

**Conditions to Avoid**

None known.

**Incompatible Materials**

Oxidizing agents (e.g. peroxides), reducing agents (e.g. hydroquinone).

**Hazardous Decomposition Products**

Oxides of Carbon  
Oxides of Nitrogen  
Oxides of Sulfur.

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute Toxicity**

---

Product Identifier: FLASH 21B - Ver. 3  
Date of Preparation: April 28, 2017  
Date of Last Revision: April 07, 2016

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
FERRIC SULFATE	Not available	500 mg/kg (rat)	Not available
Ethanol, 2-amino-, sulfate (salt)	Not available	Not available	Not available
BENZALKONIUM CHLORIDE	Not available	240 mg/kg (rat)	Not available
Ethylene glycol	2725 mg/m <sup>3</sup> (rat) (4-hour exposure)	4000 mg/kg (female rat)	9530 mg/kg (rabbit)
Ethanol	> 32380 ppm (rat) (4-hour exposure)	7060 mg/kg (rat)	> 15800 mg/kg (rabbit)

#### Skin Corrosion/Irritation

May burn the skin. Permanent scarring may result.

#### Serious Eye Damage/Irritation

May irritate or burn the eyes. Permanent damage including blindness may result.

#### STOT (Specific Target Organ Toxicity) - Single Exposure

##### Inhalation

No information was located.

##### Skin Absorption

No information was located.

##### Ingestion

Depression of the central nervous system, and effects on the heart and kidneys. In some cases, there may be delayed effects on the nervous system.

#### Aspiration Hazard

Not known to be an aspiration hazard.

#### STOT (Specific Target Organ Toxicity) - Repeated Exposure

Kidney stones and long-lasting kidney injury.

#### Respiratory and/or Skin Sensitization

Not a respiratory sensitizer. Not a skin sensitizer.

#### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
FERRIC SULFATE	Not Listed	Not designated	Not Listed	Not Listed
Ethanol, 2-amino-, sulfate (salt)	Not Listed	Not designated	Not Listed	Not Listed
BENZALKONIUM CHLORIDE	Not Listed	Not designated	Not Listed	Not Listed
Ethylene glycol	Not Listed	A4	Not Listed	Not Listed
Ethanol	Not Listed	A3	Not Listed	Not Listed

ACGIH®:

A3 – Confirmed animal carcinogen.

A4 – Not classifiable as a human carcinogen.

#### Reproductive Toxicity

##### Development of Offspring

Ethylene glycol is considered a developmental hazard based on animal evidence. In rats and mice, embryotoxic (late resorptions), fetotoxic (reduced fetal body weight) and teratogenic (external, soft tissue and skeletal defects) effects were observed at relatively high oral doses that caused no or minimal maternal toxicity. It is unlikely that humans could be exposed to high enough doses to cause developmental effects. No relevant human information was located.

Product Identifier: FLASH 21B - Ver. 3

Date of Preparation: April 28, 2017

Date of Last Revision: April 07, 2016

**Sexual Function and Fertility**

No information was located.

**Germ Cell Mutagenicity**

No information was located.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

Studies were not located.

**Chronic Aquatic Toxicity**

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Ethylene glycol	Not available	Not available	Not available	Not available

**Persistence and Degradability**

No information was located.

**Bioaccumulative Potential**

No information was located.

**Mobility in Soil**

Studies are not available.

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal Methods**

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

**SECTION 14. TRANSPORT INFORMATION**

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN3264	Corrosive Liquid, Acidic, Inorganic, N.O.S. (FERRIC SULFATE)	8	III

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**SECTION 15. REGULATORY INFORMATION****Safety, Health and Environmental Regulations****Canada****Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

All intentional components of this product are either on the DSL, the confidential DSL or notifications / import restrictions are in place.

**USA****Toxic Substances Control Act (TSCA) Section 8(b)**

All ingredients are listed on the TSCA Inventory.

**SECTION 16. OTHER INFORMATION**

**SDS Prepared By** Product Safety Committee

**Phone No.** 403-279-8545

Product Identifier: FLASH 21B - Ver. 3

Date of Preparation: April 28, 2017

Date of Last Revision: April 07, 2016

**Date of Preparation** April 28, 2017

**Date of Last Revision** April 07, 2016

**Disclaimer** 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.

---

Product Identifier: FLASH 21B - Ver. 3

Date of Preparation: April 28, 2017

Date of Last Revision: April 07, 2016

Page 07 of 07