

# Safe-t-brake

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

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Version: 1.0

155-039

### SECTION 1: Identification

#### 1.1 Product identifier

Product form : Mixtures  
Product name : Safe-t-brake  
Product code : 509/510/511/513

#### 1.2 Recommended use and restrictions on use

Recommended use : Air brake antifreeze

#### 1.3 Supplier

##### Manufacturer

Kleen-Flo Tumbler ind. Ltd.  
75 Advance Boulevard  
L6T 4N1 Brampton - CANADA  
T 905-793-4311

#### 1.4 Emergency telephone number

Emergency number : CANUTEC (613) 996-6666

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (GHS-CA)

Flammable liquids, Category 2	H225
Acute toxicity (oral), Category 3	H301
Acute toxicity (dermal), Category 3	H311
Acute toxicity (inhalation:vapour) Category 3	H331
Serious eye damage/eye irritation, Category 2	H319
Carcinogenicity, Category 2	H351
Reproductive toxicity, Category 1B	H360
Specific target organ/systemic toxicity (single exposure) Category 2	H371
Specific target organ/systemic toxicity (single exposure) Category 3	H336

#### 2.2 GHS Label elements, including precautionary statements

##### GHS-CA labelling

##### Hazard pictograms (GHS-CA)



GHS02



GHS06



GHS07



GHS08

##### Signal word (GHS-CA)

##### Hazard statements (GHS-CA)

##### Precautionary statements (GHS-CA)

: Danger  
: H225 - Highly flammable liquid and vapour  
: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled  
: H319 - Causes serious eye irritation  
: H336 - May cause drowsiness or dizziness  
: H351 - Suspected of causing cancer  
: H360 - May damage fertility or the unborn child  
: H371 - May cause damage to organs  
: P201 - Obtain special instructions before use  
: P202 - Do not handle until all safety precautions have been read and understood.  
: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
: P233 - Keep container tightly closed  
: P240 - Ground/bond container and receiving equipment  
: P241 - Use explosion-proof electrical/ventilating/lighting equipment  
: P242 - Use only non-sparking tools  
: P243 - Take action to prevent static discharges  
: P260 - Do not breathe dust/fume/gas/mist/vapours/spray  
: P264 - Wash hands, forearms and face 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/protective clothing/eye protection/face protection  
: P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
: P330 - Rinse mouth  
: P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water  
: P361+P364 - Take off immediately all contaminated clothing and wash it before reuse  
: P312 - Call a POISON CENTER or doctor if you feel unwell  
: P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
: P311 - Call a POISON CENTER or doctor  
EN (English)

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P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P308+P313 - IF exposed or concerned: Get medical advice/attention  
P403+P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS-CA)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%
Methyl alcohol	(CAS No) 67-56-1	80-100
Diethanolamine	(CAS No) 111-42-2	0.1-1

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician. If not breathing, give artificial respiration.
- First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Call a poison center or a doctor if you feel unwell.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : IF SWALLOWED: Rinse mouth. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Immediately call a POISON CENTER or doctor/physician.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/injuries after inhalation : Toxic if inhaled. Vapors may cause narcosis with headache, difficulty breathing, lightheadedness, drowsiness, unconsciousness and possibly death.
- Symptoms/injuries after skin contact : Toxic in contact with skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Other symptoms are similar to those experienced through inhalation and ingestion.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : Toxic if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May be fatal or cause blindness if swallowed. Ingestion may cause headache, dizziness, drowsiness, metabolic acidosis, coma, seizures.

### 4.3. Immediate medical attention and special treatment, if necessary

- Other medical advice or treatment : Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

### 5.2. Unsuitable extinguishing media

- Unsuitable extinguishing media : None known.

### 5.3. Specific hazards arising from the hazardous product

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Highly flammable liquid and vapour. Burns with a colorless invisible flame. In case of fire and/or explosion do not breathe fumes.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

### 5.4. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Remove all sources of ignition.

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### 6.2. Methods and materials for containment and cleaning up

- For containment : Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
- Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Use only outdoors or in a well-ventilated area. Do not breathe dust, fume, gas, mist, spray, vapours. Do not swallow. When using do not eat, drink or smoke. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Handle and open container with care.
- Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.
- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store locked up.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Methyl alcohol (67-56-1)		
USA - ACGIH	ACGIH TWA (ppm)	200 ppm
USA - ACGIH	ACGIH STEL (ppm)	250 ppm
Diethanolamine (111-42-2)		
USA - ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (inhalable fraction and vapor)

### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Wear suitable gloves resistant to chemical penetration

#### Eye protection:

Wear eye/face protection

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

#### Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear
Colour	: Colourless
Odour	: alcohol odour
Odour threshold	: No data available
pH	: 7 - 7.5
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 64.5 °C
Flash point	: 11.5 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available

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Flammability (solid, gas)	: Highly flammable liquid and vapour
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Relative density	: 0.792
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Viscosity, kinematic	: 0.75 cSt @ 20°C
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	: No dangerous reactions known under normal conditions of use.
Chemical stability	: Stable under normal conditions. May form flammable/explosive vapour-air mixture.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Heat. Sources of ignition. Direct sunlight. Incompatible materials.
Incompatible materials	: Strong acids. Strong bases. Strong oxidizers. Powdered metals. Alkali metals. Isocyanates.
Hazardous decomposition products	: May include, and are not limited to: oxides of carbon. May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Toxic if swallowed.
Acute toxicity (dermal)	: Dermal: Toxic in contact with skin.
Acute toxicity (inhalation)	: Inhalation: vapour: Toxic if inhaled.

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LD50 oral rat	> 50 but ≤ 300 mg/kg (Calculated acute toxicity estimate)
LD50 dermal rabbit	> 200 but ≤ 1000 mg/kg (Calculated acute toxicity estimate)
LC50 inhalation rat	> 2 but ≤ 10 mg/l/4h (Calculated acute toxicity estimate)

Methyl alcohol (67-56-1)	
LD50 oral rat	6200 mg/kg
LC50 inhalation rat	22500 ppm (Exposure time: 8 h)

Diethanolamine (111-42-2)	
LD50 oral rat	780 mg/kg

Skin corrosion/irritation	: Not classified. pH: 7 – 7.5
Serious eye damage/irritation	: Causes serious eye irritation. pH: 7 – 7.5
Respiratory or skin sensitization	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: May damage fertility or the unborn child.
STOT-single exposure	: May cause damage to organs. May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified.
Aspiration hazard	: Not classified.

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Viscosity, kinematic (calculated value) (40 °C)	0.75 mm²/s @ 20°C

Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.
Symptoms/injuries after inhalation	: Toxic if inhaled. Vapors may cause narcosis with headache, difficulty breathing, lightheadedness, drowsiness, unconsciousness and possibly death.
Symptoms/injuries after skin contact	: Toxic in contact with skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Other symptoms are similar to those experienced through inhalation and ingestion.
Symptoms/injuries after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/injuries after ingestion	: Toxic if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May be fatal or cause blindness if swallowed. Ingestion may cause headache, dizziness, drowsiness, metabolic acidosis, coma, seizures.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

##### Methyl alcohol (67-56-1)

LC50 fish 1	28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

##### Diethanolamine (111-42-2)

LC50 fish 1	4460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	1200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	55 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 2	2.1 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)

#### 12.2. Persistence and degradability

##### Safe-t-brake

Persistence and degradability : Not established.

#### 12.3. Bioaccumulative potential

##### Safe-t-brake

Bioaccumulative potential : Not established.

##### Methyl alcohol (67-56-1)

BCF fish 1	< 10
Partition coefficient n-octanol/water	-0.77

##### Diethanolamine (111-42-2)

BCF fish 1	(no significant bioconcentration)
Partition coefficient n-octanol/water	-2.18 (at 25 °C)

#### 12.4. Mobility in soil

##### Methyl alcohol (67-56-1)

Partition coefficient n-octanol/water	-0.77
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##### Diethanolamine (111-42-2)

Partition coefficient n-octanol/water	-2.18 (at 25 °C)
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#### 12.5. Other adverse effects

Other information : No other effects known.

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information : Handle empty containers with care because residual vapours are flammable.

### SECTION 14: Transport information

#### 14.1. Basic shipping description

In accordance with TDG

##### Transportation of Dangerous Goods

UN-No. (TDG)	: UN1992
Packing group	: II
TDG Primary Hazard Classes	: 3 - Class 3 - Flammable Liquids
TDG Subsidiary Classes	: 6.1
Transport document description	: UN1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol Mixture), 3 (6.1), II
Proper Shipping Name (Transportation of Dangerous Goods)	: FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol Mixture)
Hazard labels (TDG)	:



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### 14.2. Transport information/DOT

No additional information available

### 14.3. Air and sea transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. National regulations

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

### 15.2. International regulations

No additional information available

## SECTION 16: Other information

Date of issue	: 01/04/2017
Revision date	: 01/04/2017
Other information	: None.
Prepared by	: Kleen-Flo Tumbler Industries Limited

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