

### 1. Identification

#### 1.1. Product identifier

**Product Identity** Halt GX  
**Alternate Names** Halt GX

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Intended use** Coinjection chemical which will 'halt' gas production.  
For professional use only.  
**Application Method** See Technical Data Sheet.

#### 1.3. Details of the supplier of the safety data sheet

**Company Name** Dodge Chemical Company (Canada) Ltd.  
The Dodge Chemical Company (Canada) Ltd.  
1265 Fewster Drive  
Mississauga ON L4W 1A2

#### Emergency

**CHEMTREC (USA)** (800) 424-9300  
**24 hour Emergency Telephone No.** (888) 226-8832 (CANUTEC)  
**Customer Service: Dodge Chemical Company (Canada) Ltd.** (800) 263-0862, (905) 625-0311

### 2. Hazard(s) identification

#### 2.1. Classification of the substance or mixture

Flam. Liq. 3;H226	Flammable liquid and vapor.
Acute Tox. 4;H302	Harmful if swallowed.
Acute Tox. 2;H330	Fatal if inhaled.
Skin Corr. 1B;H314	Causes severe skin burns and eye damage.
Eye Dam. 1;H318	Causes serious eye damage.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Resp. Sens. 1;H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT SE 3;H335	May cause respiratory irritation.
Aquatic Chronic 2;H411	Toxic to aquatic life with long lasting effects.

### 2.2. Label elements



### Danger

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

#### [Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P233 Keep container tightly closed.

P240 Ground / bond container and receiving equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

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

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

P284 Wear respiratory protection.

#### [Response]:

P301+312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

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 cautiously 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.

P330 IF SWALLOWED: Rinse mouth.

P331 Do NOT induce vomiting.

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.

P391 Collect spillage.

**[Storage]:**

P403+233 Store in a well ventilated place. Keep container tightly closed.

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 Controlled Products Regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
<b>1,5-Pentanedial</b> CAS Number: 0000111-30-8 Synonyms: 1,5-Pentanedial, Aldehyd glutarowy, Glutaraldehyde, Pentanedial, Glutaral	10 - 30	Acute Tox. 2;H330 Acute Tox. 3;H301 STOT SE 3;H335 Skin Corr. 1B;H314 Resp. Sens. 1;H334 Skin Sens. 1A;H317 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	[1][2]
<b>Isopropyl Alcohol</b> CAS Number: 0000067-63-0 Synonyms: ISOPROPANOL, Isopropyl Alcohol, ISOPROPYL ALCOHOL (manufacture-strong acid process, Propan-2-ol, Solvent C-3	7 - 13	Flam. Liq. 2;H225 Eye Irrit. 2;H319 STOT SE 3;H336	[1][2]
<b>Sodium citrate</b> CAS Number: 0000068-04-2 Synonyms: Sodium citrate	3 - 7	Not Classified	[1]

The actual concentration or concentration range is withheld as a trade secret.

[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.

### Section 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.

<b>Skin</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
<b>Ingestion</b>	If the person is conscious, have them drink water. Contact a physician immediately. Do not induce vomiting.

#### 4.2. Most important symptoms and effects, both acute and delayed

<b>Overview</b>	Treat symptomatically.  Possible routes of entry are dermal, oral and inhalation. May cause allergic respiratory and skin reactions. Chronic exposure may cause dermatitis, largely based on human evidence.  Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.  Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.
<b>Inhalation</b>	Fatal if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms of breathing difficulties if inhaled.
<b>Eyes</b>	Causes serious eye damage.
<b>Skin</b>	May cause an allergic skin reaction. Causes severe skin burns and eye damage.
<b>Ingestion</b>	Harmful if swallowed.

### Section 5. Fire-fighting measures

#### 5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder, water spray.  
Do not use: water jet.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of carbon and nitrogen.

#### 5.3. Advice for fire-fighters

Wear self-contained breathing apparatus to protect from decomposition products.

### Section 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

Do not allow spills to enter drains or waterways.

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

Vapor is heavier than air and may flow along surface to distant ignition source and flashback.

Spread an inert absorbent on the spill and place in a suitable, properly labeled container for recovery or disposal.

Flush area with large quantities of water.

## Section 7. Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with skin. Avoid contact with eyes. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Launder contaminated clothing before reuse. Avoid environmental contamination.

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

Incompatible materials: Strong oxidizing agents, strong acids and alkalis

### 7.3. Specific end use(s)

No data available.

## Section 8. Exposure controls and personal protection

### 8.1. Control parameters

#### Exposure

CAS No.	Ingredient	Source	Value
0000067-63-0	Isopropyl Alcohol	OSHA	TWA 400 ppm (980 mg/m3) STEL 500 ppm
		ACGIH	TWA: 200 ppm STEL: 400 ppm
		NIOSH	TWA 400 ppm (980 mg/m3) ST 500 ppm (1225 mg/m3)
0000068-04-2	Sodium citrate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0000111-30-8	1,5-Pentanedial	OSHA	No Established Limit
		ACGIH	Ceiling: 0.05 ppm
		NIOSH	C 0.2 ppm (0.8 mg/m3)

### 8.2. Exposure controls

#### Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

#### Eyes

Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.

<b>Skin</b>	Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Wear PVC or rubber gloves.
<b>Engineering Controls</b>	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.
<b>Other Work Practices</b>	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

## Section 9. Physical and chemical properties

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

<b>Appearance</b>	Liquid
<b>Odor</b>	Not Provided
<b>Odor threshold</b>	Not determined
<b>pH</b>	7.4 - 7.6
<b>Melting point / freezing point</b>	Not Measured
<b>Initial boiling point and boiling range</b>	179 - 183F (82 - 84C)
<b>Flash Point</b>	88 - 92F (31-33C)
<b>Evaporation rate (Ether = 1)</b>	< 1 (n-Butyl acetate = 1)
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> Water Solution <b>Upper Explosive Limit:</b> Water Solution
<b>Vapor pressure (Pa)</b>	Unknown
<b>Vapor Density</b>	Greater than 1 (Air = 1)
<b>Specific Gravity</b>	1.045 - 1.055
<b>Solubility in Water</b>	Not Measured
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured
<b>Auto-ignition temperature</b>	Not Measured
<b>Decomposition temperature</b>	Not Measured
<b>Viscosity (cSt)</b>	Not Measured
<b>VOC Content</b>	85%

### 9.2. Other information

No other relevant information.

## Section 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**

Avoid prolonged exposure to heat and/or light.

**10.5. Incompatible materials**

Strong oxidizing agents, strong acids and alkalis

**10.6. Hazardous decomposition products**

Oxides of carbon and nitrogen.

**Section 11. Toxicological information**

**Acute toxicity**

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

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).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
1,5-Pentanedial - (111-30-8)	246.00, Rat - Category: 3	>2,000.00, Rabbit - Category: 5	No data available	0.48, Rat - Category: 3	No data available
Isopropyl Alcohol - (67-63-0)	5,840.00, Rat - Category: NA	12,800.00, Rabbit - Category: NA	72.60, Rat - Category: NA	No data available	No data available
Sodium citrate - (68-04-2)	No data available	No data available	No data available	No data available	No data available

**Carcinogen Data**

CAS No.	Ingredient	Source	Value
0000067-63-0	Isopropyl Alcohol	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;



**Safety Data Sheet**  
**Halt GX**

SDS Revision  
Date: 10/03/2018

0000068-04-2	Sodium citrate	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000111-30-8	1,5-Pentanedial	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	2	Fatal if inhaled.
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	1	May cause allergy or asthma symptoms of breathing difficulties if inhaled.
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	3	May cause respiratory irritation.
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry are dermal, oral and inhalation. May cause allergic respiratory and skin reactions. Chronic exposure may cause dermatitis, largely based on human evidence.

## Section 12. Ecological information

### 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

#### Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
1,5-Pentanedial - (111-30-8)	10.00, Oncorhynchus mykiss	29.73, Daphnia magna	1.20 (72 hr), Desmodesmus subspicatus
Isopropyl Alcohol - (67-63-0)	10,000.00, Pimephales promelas	Not Available	Not Available
Sodium citrate - (68-04-2)	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.

## Section 13. Disposal considerations

### 13.1. Waste treatment methods

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

## Section 14. Transport information

	<b>TDG (Domestic Surface Transportation)</b>	<b>IMO / IMDG (Ocean Transportation)</b>	<b>ICAO/IATA</b>
<b>14.1. UN number</b>	UN1993	UN1993	UN1993
<b>14.2. UN proper shipping name</b>	UN1993, Flammable liquids, n.o.s., (Ethanol), 3, III	Flammable liquids, n.o.s., (Ethanol)	Flammable liquids, n.o.s., (Ethanol)
<b>14.3. Transport hazard class(es)</b>	<b>TDG Hazard Class: 3</b>	<b>IMDG: 3</b> <b>Sub Class: Not Applicable</b>	<b>Air Class: 3</b>
<b>14.4. Packing group</b>	III	III	III
<b>14.5. Environmental hazards</b>			
<b>IMDG</b>	Marine Pollutant: Yes; ( 1,5-Pentanedial )		
<b>14.6. Special precautions for user</b>	No further information		

## Section 15. Regulatory information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

**WHMIS 1988 Classification**            B2 D1A E



**Canadian Domestic Substance List (DSL):**

2-HYDROXY 1, 2, 3 PROPANE TRICARBOXYLIC ACID  
2-Hydroxyethyl cellulose  
1,5-Pentanedial  
Isopropyl Alcohol  
Nonylphenol polyethylene glycol ether  
Potassium chloride  
Sodium citrate

**Canadian Non-Domestic Substance List (NDSL):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

<b>Section 16. Other information</b>
--------------------------------------

**SDS Revision Date** 10/03/2018

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

H225 Highly flammable liquid and vapor.

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H331 Toxic if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness and dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

This Safety data Sheet was prepared using information provided by/obtained from the Dodge Chemical Company Inc. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to the product. The Dodge Chemical Company, Inc. expressly disclaim all expressed or implied warranty and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other processes as to the accuracy of and/or sufficiency of such information. This Safety Data Sheet may not be changed or altered in any way without the expressed knowledge and permission of The Dodge Chemical Company, Inc.

End of Document