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MSDS Number: 282
Revision Date: 04/21/2015
Supersedes Date: 07/23/2012

SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Name: BIG BATH GC³ CLEANER/DEGREASER

SECTION 1- PRODUCT AND COMPANY IDENTIFICATION

Product Type:	Cleaner/Degreaser	Emergency Contact:	Chemtrec
Product Name:	BIG BATH GC³ CLEANER/ DEGREASER	Phone:	(800) 424-9300
Part Number(s):	19-905 19-906		

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)

Flam. Aerosol 1; Liquefied gas; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3

Label elements

Hazard Symbol



DANGER

Signal word(s)

Hazard Statement(s)

Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary Statement(s)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Wear protective gloves/eye protection.
Wash hands and exposed skin after use.
Avoid breathing spray.
Use only outdoors or in a well-ventilated area.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

Other hazards

Intentional inhalation of gas from the container may be fatal. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

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Product Name: BIG BATH GC³ CLEANER/DEGREASER

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt.*	CAS No.	Hazard classification
1,1,1,2-Tetrafluoroethane	50 - 70	811-97-2	Liquified Gas; H280 Simple Asphyxiant
Trans-1,2-Dichloroethylene	< 25	156-60-5	Flam. Liq. 1; H224 Acute Tox. 4; H302 STOT SE 3; H336 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Acute 3; H402 Aquatic Chronic 3; H412
1,1,1,2,2,3,4,5,5,5-Decafluoropentane	10 - 20	138495-42-8	Compressed dissolved gas; H280 Simple Asphyxiant Aquatic Acute 3; H402 Aquatic Chronic 3; H412
Ethanol	1 - 5	64-17-5	Flam. Liq. 2; H225 Eye Irrit. 2; H319
Methanol	<1	67-56-1	Flam. Liq. 2; H225 Acute Tox. 3; H301, H311, H331 STOT SE 1; H370
Isopropanol	<0.5	67-63-0	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
Methyl isobutyl ketone	<0.5	108-10-1	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT SE 3; H335

Additional Information: None

* The exact percentage withheld as a trade secret in accordance with 29 CFR 1910.1200

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Inhalation

If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing is labored, administer oxygen. If symptoms develop, obtain medical attention.

Skin Contact

Wash affected skin with soap and water. If irritation (redness, rash, blistering) develops, get medical attention.

Eye Contact

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.



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SECTION 4: FIRST AID MEASURES (CONTINUED)

Ingestion	Do not induce vomiting. Do not give anything by mouth to an unconscious person. Rinse mouth.
Most important symptoms and effects, both acute and delayed	None
Indication of any immediate medical attention and special treatment needed	None

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media	
-Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or water spray.
-Unsuitable Extinguishing Media	Do not use water jet.
Special hazards arising from the substance or mixture	None
Advice for fire-fighters	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Eliminate sources of ignition. Avoid contact with skin and eyes. Avoid breathing spray. Wear protective gloves/eye protection.
Environmental precautions	Prevent liquid entering sewers, basements and work pits. Avoid release to the environment.
Methods and material for containment and cleaning up	Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.
Reference to other sections	None
Additional Information	None



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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use product in a well-ventilated area only. Avoid contact with skin and eyes. Avoid breathing spray. Wear protective gloves/eye protection.

Conditions for safe storage, including any incompatibilities

-Storage temperature

Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F. Keep container tightly closed. Store locked up.

-Incompatible materials

This product should be stored away from sources of strong heat, oxidizing agents, and reducing agents. Strong Acids, strong bases and reactive metals. Do not mix with finely divided alkali or alkaline earth metals.

Specific end use(s)

Cleaner / Degreaser

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Trans-1,2-Dichloroethylene	156-60-5	200 ppm	200 ppm	-----	-----	-----
Ethanol	64-17-5	1000 ppm	-----	-----	1000 ppm	-----
Methanol	67-56-1	200 ppm	200 ppm	-----	250 ppm	Skin
Isopropanol	67-63-0	400 ppm	-----	200 ppm	400 ppm	-----
Methyl Isobutyl Ketone	108-10-1	100 ppm	20 ppm	-----	75 ppm	A3

A3 = Confirmed Animal Carcinogen

Recommended monitoring method

NIOSH 1003 (Hydrocarbons, Halogenated); NIOSH 1400 (Alcohols I); NIOSH 2000 (Methanol);), NIOSH 1300 (Ketones I)

Exposure controls

Appropriate engineering controls

Use only with adequate ventilation to keep exposures (airborne levels of dust, fume, vapour etc) below recommended exposure limits.

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Product Name: BIG BATH GC³ CLEANER/DEGREASER

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

Personal protection equipment

Eye/face protection

Wear protective eyewear (goggles, face shield, or safety glasses).



Skin protection (Hand protection/ Other)

Wear suitable gloves if prolonged skin contact is likely. Check with protective equipment manufacturer's data.



Respiratory protection

Normally no personal respiratory protection is necessary. In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.



Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

Environmental Exposure Controls

Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Aerosol spray
Color	Clear
Odor	Pleasant
Odor Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	< -40 (< -40 °F)
Boiling point/boiling range (°C):	> -25 (> -13 °F)
Flash Point (°C)	6 (42.8 °F)
Evaporation Rate	Not available
Flammability (solid, gas)	Flammable aerosol
Explosive Limit Ranges	~ 9% - 13%
Vapor pressure (Pascal)	> 4.4 x 10 ⁴ (> 331 mmHg)
Vapor Density (Air=1)	> 1
Density (g/ml)	Not available
Solubility (Water)	Not available
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	~ 460 (860 °F)
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt)	Not available
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

Other information

None



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SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	Avoid contact with heat and ignition sources.
Incompatible materials	This product should be stored away from sources of strong heat , oxidizing agents, and reducing agents. Strong Acids, strong bases and reactive metals. Do not mix with finely divided alkali or alkaline earth metals.
Hazardous decomposition product(s)	Carbon monoxide, Carbon dioxide, Acrid smoke, Hydrogen chloride, Phosgene gas, Chlorine gas, Hydrogen Flouride, Carbonyl Fluoride, Fluorinated Hydrocarbons.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Information on toxicological effects

Trans-1,2-dichloroethylene (CAS No. 156-60-5):

Acute toxicity (calculated / estimated)	Oral LD50 = 770 mg/kg (rat) Dermal LD50 >5000 mg/kg (rabbit) Inhalation LC50 2410 ppm (4 hour(s)) (rat) - Vapours may cause drowsiness and dizziness.
Irritation/Corrosivity	Causes skin irritation. Causes serious eye irritation. Repeated exposure may cause skin dryness or cracking.
Sensitization	It is not a skin sensitizer.
Repeated dose toxicity	Inhalation NOAEL 4000 ppm (rat) (90-days)
Carcinogenicity	It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity	Negative
Reproductive toxicity	Negative
Other information	None known.

Methanol (CAS# 67-56-1):

Acute toxicity *	LD50 (oral, monkey): 7000 mg/kg-bw LD0 (oral, rat): \geq 2528 mg/kg-bw LC50 (inhal., cat, 6-hours): 43.68 mg/L LC50 (inhal., monkey, 4-hours): 52 mg/L Ingestion may damage the optic nerve. May cause dizziness and drowsiness.
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SECTION 11: TOXICOLOGICAL INFORMATION (CONTINUED)

Irritation	May cause eye irritation.
Sensitisation	It is not a skin sensitiser.
Repeated dose toxicity	NOAEC (2-yr. inhal., mouse): ≥ 1.3 mg/L
Developmental Toxicity	Negative. Not a specific developmental toxin.
Toxicity for reproduction	Negative. Not a specific reproductive toxin.
Carcinogenicity	

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Other information

- * ATE (oral) = 100 mg/kg
- * ATE (dermal) = 300 mg/kg
- * ATE (inhalation) = 3 mg/L

*ATE = Acute Toxicity Estimate for purposes of classification

Methyl Isobutyl Ketone (CAS No. 108-10-1)

Acute toxicity	Oral LD50 = 2080 mg/kg (rat) Inhalation LC50 >8 mg/l - < 16 mg/l (4 hour(s)) (rat) - May cause respiratory irritation.
Irritation / Corrosivity	Unlikely to cause eye irritation. Unlikely to cause skin irritation.
Sensitisation	It is not a skin sensitiser.
Repeated dose toxicity	Oral NOAEL = 50 mg/kg/day (rat) (90-days) - Inhalation NOAEL = 450 ppm (rat) - Kidneys (This effect is unlikely to occur in humans, provided exposure is maintained at or below the occupational exposure limit.)
Carcinogenicity	It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	A3	No.	No.

A3 = Confirmed Animal Carcinogen

Mutagenicity	Negative
Toxicity for reproduction	Negative
Other information	None known.



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SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Trans-1,2-dichloroethylene (CAS No. 156-60-5):

Short term	LC50 (96 hour): 74 - 290 mg/L (Fish) LC50 (48 hour): 79 mg/L (Daphnia magna) LC50 (96 hour): 798 mg/L (Algae)
Long Term	NOEC (28 days): <110 mg/L (Fish)

1,1,1,2,2,3,4,5,5,5-Decafluoropentane (CAS No. 138495-42-8):

Short term	LC50 (96 hour): 13.9 - 27.2 mg/L (Fish) LC50 (48 hour): 11.7 mg/L (Daphnia magna)
Long Term	No data

Persistence and degradability	Not readily biodegradable.
Bioaccumulative potential	The product has a low potential for bioaccumulation.
Mobility in soil	May evaporate quickly.
Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.
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SECTION 14: TRANSPORT INFORMATION

	<u>U.S. DOT</u>	<u>Sea transport (IMDG)</u>	<u>Air transport (ICAO/IATA)</u>
UN number	1950	1950	1950
Proper Shipping Name	Aerosols, flammable	Aerosols, flammable	Aerosols, flammable
Transport hazard class(es)	2.1	2.1	2.1
Packing group	Not applicable	Not applicable	Not applicable
Environmental hazards	None assigned	None assigned	None assigned
Special precautions for user	None assigned	None assigned	None assigned

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable



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SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
Trans-1,2-Dichloroethylene	156-60-5	20	1000
Methanol	67-56-1	< 1	5000
Methyl Isobutyl Ketone	108-10-1	< 1	5000

SARA 311/312 - Hazard Categories:

Fire Sudden Release Reactivity Immediate (acute) Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
Methanol	67-56-1	< 1
Methyl Isobutyl Ketone	108-10-1	< 1
Isopropanol	67-63-0	< 1

SARA 302 - Extremely Hazardous Substances (40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

California Proposition 65 List:

Chemical Name	CAS No.	Type of Toxicity
Methanol	67-56-1	Developmental

SECTION 16: OTHER INFORMATION

Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:

Hazard Statement(s)

- H224: Extremely flammable liquid and vapour.
- H225: Highly flammable liquid and vapour.
- H280: Contains gas under pressure; may explode if heated.
- H301: Toxic if swallowed.
- H302: Harmful if swallowed.
- H311: Toxic in contact with skin
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H331: Toxic if inhaled.
- H332: Harmful if inhaled.
- H335: May cause respiratory irritation.
- H336: May cause drowsiness or dizziness.
- H370: Causes damage to organs: Optic nerve, Central nervous system)
- H402: Harmful to aquatic life.
- H412: Harmful to aquatic life with long lasting effects.

Training advice: None.



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SECTION 16: OTHER INFORMATION (CONTINUED)

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