

SAFETY DATA SHEET



BG Throttle Body & Intake Cleaner, 45% VOC (Aerosol)

1. Product and company identification

Manufacturer	: BG Products Inc. 701 S. Wichita Street Wichita, KS, 67213, USA www.bgprod.com
<u>Relevant identified uses of the substance or mixture and uses advised against</u>	
MSDS #	: 406CC
Validation date	: 2/7/2013.
Responsible name	: Kolin Anglin, Environmental Coordinator 316-265-2686 msds@bgprod.com
<u>In case of emergency</u>	: (800) 424-9300 (CHEMTREC)

2. Hazards identification

<u>OSHA/HCS status</u>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<u>Classification of the substance or mixture</u>	: FLAMMABLE AEROSOLS - Category 1 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 15%
<u>GHS label elements</u>	
Hazard pictograms	: 
Signal word	: Danger
Hazard statements	: Extremely flammable aerosol.
<u>Precautionary statements</u>	
Prevention	: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.
Response	: Not applicable.
Storage	: Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F.
Disposal	: Not applicable.
Hazards not otherwise classified	: None known.

3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.
<u>CAS number/other identifiers</u>	
CAS number	: Not applicable.
Product code	: 406CC

3. Composition/information on ingredients

Ingredient name	%	CAS number
acetone	40 - 70	67-64-1
toluene	10 - 30	108-88-3
xylene	5 - 10	1330-20-7
4-hydroxy-4-methylpentan-2-one	5 - 10	123-42-2
methanol	0.5 - 1.5	67-56-1
ethylbenzene	0.5 - 1.5	100-41-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
irritation
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Acetone	<p>ACGIH TLV (United States, 3/2012). TWA: 500 ppm 8 hours. TWA: 1188 mg/m³ 8 hours. STEL: 750 ppm 15 minutes. STEL: 1782 mg/m³ 15 minutes.</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 750 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m³ 15 minutes.</p> <p>NIOSH REL (United States, 6/2009). TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 6/2010). TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.</p>
toluene	<p>OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 375 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes.</p>

8. Exposure controls/personal protection

xylene

OSHA PEL Z2 (United States, 11/2006).

TWA: 200 ppm 8 hours.

CEIL: 300 ppm

AMP: 500 ppm 10 minutes.

NIOSH REL (United States, 6/2009).

TWA: 100 ppm 10 hours.

TWA: 375 mg/m³ 10 hours.

STEL: 150 ppm 15 minutes.

STEL: 560 mg/m³ 15 minutes.

ACGIH TLV (United States, 3/2012).

TWA: 20 ppm 8 hours.

4-hydroxy-4-methylpentan-2-one

ACGIH TLV (United States, 3/2012).

TWA: 100 ppm 8 hours.

TWA: 434 mg/m³ 8 hours.

STEL: 150 ppm 15 minutes.

STEL: 651 mg/m³ 15 minutes.

OSHA PEL 1989 (United States, 3/1989).

TWA: 100 ppm 8 hours.

TWA: 435 mg/m³ 8 hours.

STEL: 150 ppm 15 minutes.

STEL: 655 mg/m³ 15 minutes.

OSHA PEL (United States, 6/2010).

TWA: 100 ppm 8 hours.

TWA: 435 mg/m³ 8 hours.

ACGIH TLV (United States, 3/2012).

TWA: 50 ppm 8 hours.

TWA: 238 mg/m³ 8 hours.

OSHA PEL 1989 (United States, 3/1989).

TWA: 50 ppm 8 hours.

TWA: 240 mg/m³ 8 hours.

NIOSH REL (United States, 6/2009).

TWA: 50 ppm 10 hours.

TWA: 240 mg/m³ 10 hours.

OSHA PEL (United States, 6/2010).

TWA: 50 ppm 8 hours.

TWA: 240 mg/m³ 8 hours.

methanol

ACGIH TLV (United States, 3/2012).

Absorbed through skin.

TWA: 200 ppm 8 hours.

TWA: 262 mg/m³ 8 hours.

STEL: 250 ppm 15 minutes.

STEL: 328 mg/m³ 15 minutes.

OSHA PEL 1989 (United States, 3/1989).

Absorbed through skin.

TWA: 200 ppm 8 hours.

TWA: 260 mg/m³ 8 hours.

STEL: 250 ppm 15 minutes.

STEL: 325 mg/m³ 15 minutes.

NIOSH REL (United States, 6/2009).

Absorbed through skin.

TWA: 200 ppm 10 hours.

TWA: 260 mg/m³ 10 hours.

STEL: 250 ppm 15 minutes.

STEL: 325 mg/m³ 15 minutes.

OSHA PEL (United States, 6/2010).

TWA: 200 ppm 8 hours.

8. Exposure controls/personal protection

ethylbenzene

TWA: 260 mg/m³ 8 hours.
ACGIH TLV (United States, 3/2012).
 TWA: 20 ppm 8 hours.
OSHA PEL 1989 (United States, 3/1989).
 TWA: 100 ppm 8 hours.
 TWA: 435 mg/m³ 8 hours.
 STEL: 125 ppm 15 minutes.
 STEL: 545 mg/m³ 15 minutes.
NIOSH REL (United States, 6/2009).
 TWA: 100 ppm 10 hours.
 TWA: 435 mg/m³ 10 hours.
 STEL: 125 ppm 15 minutes.
 STEL: 545 mg/m³ 15 minutes.
OSHA PEL (United States, 6/2010).
 TWA: 100 ppm 8 hours.
 TWA: 435 mg/m³ 8 hours.

Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

8. Exposure controls/personal protection

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

9. Physical and chemical properties

Physical state : Liquid.
Flash point : Not available.
Auto-ignition temperature : Not available.
Flammable limits : Not available.
Color : Colorless.
Odor : Solvent.
pH : Not available.
Boiling/condensation point : Not available.
Melting/freezing point : Not available.
Specific gravity : 0.7348
Vapor pressure : Not available.
Vapor density : >1 [Air = 1]
Odor threshold : Not available.
Evaporation rate : >1 (butyl acetate = 1)
Solubility : Insoluble in the following materials: cold water and hot water.
Density : 6.132 (lbs/gal)
VOC content : 44.2 % (w/w)
Aerosol product
Type of aerosol : Spray
Heat of combustion : >30 kJ/g

10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.
Chemical stability : The product is stable.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid : Avoid all possible sources of ignition (spark or flame).
Incompatible materials : No specific data.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Oral	Rat	5800 mg/kg	-
	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
toluene	LD50 Oral	Rat	636 mg/kg	-
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
xylene	LD50 Oral	Rat	4300 mg/kg	-
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
4-hydroxy-4-methylpentan-2-one	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	13500 mg/kg	-
methanol	LD50 Oral	Rat	2520 mg/kg	-
	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
ethybenzene	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
ethybenzene	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
ethybenzene	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
toluene	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
xylene	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
4-hydroxy-4-methylpentan-2-one	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
methanol	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 100 microliters	-
methanol	Skin - Mild irritant	Rabbit	-	500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-

Section 11. Toxicological information

ethylbenzene	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
toluene	-	3	-
xylene	-	3	-
ethylbenzene	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : No specific data.

Ingestion : No specific data.

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Acetone	Acute EC50 20.565 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 100000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
toluene	Acute EC50 433 ppm Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 500000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
xylene	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
4-hydroxy-4-methylpentan-2-one methanol	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 420000 µg/l Marine water	Fish - Menidia beryllina	96 hours
	Acute EC50 16.912 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon -	48 hours

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ethylbenzene	Acute LC50 3289 mg/l Fresh water	Adult Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 100000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 5200 µg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 4200 µg/l Fresh water Chronic NOEC 1000 µg/l Fresh water	Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata	96 hours 96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Acetone	-0.24	-	low
toluene	2.73	8.32	low
xylene	3.16	-	low
4-hydroxy-4-methylpentan-2-one	-0.14 to 1.03	-	low
methanol	-0.77	-	low
ethylbenzene	3.15	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS, flammable	AEROSOLS, flammable	AEROSOLS, flammable
Transport hazard class(es)	2.1 	2.1 	2.1 
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	<u>Limited quantity</u> Yes.	<u>Emergency schedules (EmS)</u> F-D, S-U <u>Remarks</u> Limited quantity	<u>Passenger and Cargo Aircraft</u> Quantity limitation: 75 kg <u>Cargo Aircraft Only</u> Quantity limitation: 150 kg <u>Limited Quantities - Passenger Aircraft</u> Quantity limitation: 30 kg <u>Remarks</u> Limited quantity

Special precautions for user : **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR**: 4-hydroxy-4-methylpentan-2-one
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: toluene; ethylbenzene; benzene
Clean Water Act (CWA) 311: toluene; xylene; ethylbenzene; benzene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

DEA List II Chemicals (Essential Chemicals) : Listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

15. Regulatory information

Classification : Fire hazard
 Immediate (acute) health hazard
 Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
acetone	Yes.	No.	No.	Yes.	Yes.
toluene	Yes.	No.	No.	Yes.	Yes.
xylene	Yes.	No.	No.	Yes.	Yes.
4-hydroxy-4-methylpentan-2-one	Yes.	No.	No.	Yes.	Yes.
methanol	Yes.	No.	No.	Yes.	Yes.
ethylbenzene	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number
Form R - Reporting requirements	toluene xylene methanol ethylbenzene	108-88-3 1330-20-7 67-56-1 100-41-4
Supplier notification	toluene xylene methanol ethylbenzene	108-88-3 1330-20-7 67-56-1 100-41-4

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: ACETONE; TOLUENE; XYLENE; DIACETONE ALCOHOL; METHANOL; ETHYL BENZENE
- New York** : The following components are listed: Acetone; 2-Propanone; Toluene; Xylene (mixed); Methanol; Ethylbenzene
- New Jersey** : The following components are listed: ACETONE; 2-PROPANONE; TOLUENE; BENZENE, METHYL-; XYLENES; BENZENE, DIMETHYL-; DIACETONE ALCOHOL; 2-PENTANONE, 4-HYDROXY-4-METHYL-; METHYL ALCOHOL; METHANOL; ETHYL BENZENE; BENZENE, ETHYL-
- Pennsylvania** : The following components are listed: 2-PROPANONE; BENZENE, METHYL-; BENZENE, DIMETHYL-; 2-PENTANONE, 4-HYDROXY-4-METHYL-; METHANOL; BENZENE, ETHYL-

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
toluene	No.	Yes.	No.	7000 µg/day (ingestion)
methanol ethylbenzene	No. Yes.	Yes. No.	No. 41 µg/day (ingestion) 54 µg/day (inhalation)	No. No.
benzene	Yes.	Yes.	6.4 µg/day (ingestion)	24 µg/day (ingestion) 49 µg/day

15. Regulatory information

			13 µg/day (inhalation)	(inhalation)
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United States inventory (TSCA 8b) : All components are listed or exempted.

Canada

WHMIS (Canada) : Class B-5: Flammable aerosol.
Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI : The following components are listed: Volatile organic compounds; Toluene; Xylene (all isomers); Methanol; Ethylbenzene

CEPA Toxic substances : The following components are listed: Volatile organic compounds

Canada inventory : All components are listed or exempted.

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

International regulations

International lists :

- Australia inventory (AICS)**: All components are listed or exempted.
- China inventory (IECSC)**: All components are listed or exempted.
- Japan inventory**: Not determined.
- Korea inventory**: All components are listed or exempted.
- Malaysia Inventory (EHS Register)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.
- Philippines inventory (PICCS)**: All components are listed or exempted.
- Taiwan inventory (CSNN)**: Not determined.

16. Other information

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	4
Physical hazards	2

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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16. Other information

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of printing : 2/7/2013.

Date of issue/Date of revision : 2/7/2013.

Date of previous issue : 6/24/2011.

Version : 2

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

☑ Indicates information that has changed from previously issued version.

Notice to reader

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.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.