







Section 1: Information	
Product Name	Butane for BHST-200 (#99142)
Product Code(s)	Butane1
Recommended Usage	Fuel
Manufacturer/Distributor	ECM Industries LLC (dba Gardner Bender)
Address	16250 W. Woods Edge Road New Berlin, WI 53151
Website	www.ecmindustries.com
Telephone Number	1-800-624-4320
EMERGENCY Telephone Number	Chemtrec: (24/7) 800-424-9300 Or International 703-527-3887
Section 2: Hazard Identification	
Classification according to Regulation (EC) No 1272/2008	 <p>GHS02 flame Flam. Gas 1 H220 Extremely flammable gas. Flam. Liq. 1 H224 Extremely flammable liquid and vapour. Press. Gas H280 Contains gas under pressure; may explode if heated.</p>
Classification according to Directive 67/548/EEC or Directive 1999/45/EC	F+; Extremely flammable R12: Extremely flammable.
Information concerning particular hazards for human & environment	Not applicable.
GHS Label Elements	
Labelling according to Regulation (EC) No 1272/2008	The substance is classified and labelled according to the CLP regulation.
Hazard pictograms	 <p>GHS02</p>
Signal Word	Danger
Hazard Statement	H220 Extremely flammable gas. H280 Contains gas under pressure; may explode if heated. H224 Extremely flammable liquid and vapour. Restricted to professional users.
Precautionary Statements	
P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use. P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P241 Use explosion-proof electrical/ventilating/lighting/equipment. (Contd. of page 1) P280 Wear protective gloves/protective clothing/eye protection/face protection. P240 Ground/bond container and receiving equipment. P233 Keep container tightly closed. P242 Use only non-sparking tools.	

P243 Take precautionary measures against static discharge.
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
 P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
 P381 Eliminate all ignition sources if safe to do so.
 P410 Protect from sunlight.
 P403 Store in a well-ventilated place.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard description

WHMIS-symbols	A – Compressed Gas 	B1 – Flammable Gas 
NFPA ratings (scale 0 - 4)		Health = 0 Fire = 4 Reactivity = 0
HMIS-ratings (scale 0 - 4)		Health = 0 Fire = 4 Reactivity = 0
Other hazards : Results of PBT and vPvB assessment		
PBT	Not Applicable	
vPvB	Not Applicable	

Section 3 – Composition/Information on Ingredients

CAS No. Description	Description
68476-86-8	Petroleum gases, liquefied, sweetened
Identification number(s)	
EC number	270-705-8
Index number	649-203-00-1

Section 4: First-Aid Measures

Inhalation	Supply fresh air; consult doctor in case of complaints
Skin	Generally the product does not irritate the skin. Immediately rinse with water. If skin irritation continues, consult a doctor.
Eye	Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Ingestion	Unlikely route of exposure. Do not induce vomiting; call for medical help immediately.

Most Important Symptoms/Effects (Acute & Delayed) Potential Health Effects

No further relevant information available.	
Indication of Immediate Medical Attention & Special Treatment Needed, If Necessary	
No further relevant information available.	
Section 5: Fire-Fighting Measures	
Suitable Extinguishing Media	CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture	No further relevant information available.
Advice for firefighters	
Special Protective Equipment for Firefighters	Wear self-contained respiratory protective device. Wear fully protective suit.
Additional information	Cool endangered receptacles with water spray.
Section 6 - Accidental Release Measures	
Personal precautions, protective equipment and emergency procedures	
Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Keep away from ignition sources.	
Environmental Precautions	Do not allow to enter sewers/ surface or ground water.
Methods and material for containment and cleaning up	Allow to evaporate.
Reference to other sections	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.
Section 7 - Handling and Storage	
Precautions for safe handling Open and handle receptacle with care.	
Information about fire - and explosion protection	Keep ignition sources away - Do not smoke. Protect from heat. Protect against electrostatic charges.
Conditions for safe storage, including any incompatibilities	
Requirements to be met by storerooms and receptacles	Store in a cool location.
Information about storage in one common storage facility	Store away from oxidizing agents.
Further information about storage conditions	Store in cool, dry conditions in well-sealed receptacles. Protect from heat and direct sunlight.
Specific end use(s)	No further relevant information available.





Section 8 - Exposure Controls/Personal Protection

Control parameters	
Ingredients with limit values that require monitoring at the workplace	Not required.
Additional information	The lists valid during the making were used as basis.
Exposure controls	
General protective and hygienic measures	Wash hands before breaks and at the end of work.
Respiratory protection	Use suitable respiratory protective device in case of insufficient ventilation.
Skin Protection	
Hand Protection	Not required.
Material of gloves	The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material	The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:	Not required.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties			
Appearance		Self-Igniting	N/D
Form	Compressed liquefied gas	Explosion Limits	
Colour	Colourless	Lower	1,8 Vol %
Odour	Odourless	Upper	9,5 Vol %
Odour Threshold	Not Determined (N/D)	Vapour Pressure at 21° C	2814 hPa (2110 mm Hg)
pH Value	N/D	Density at 20° C	0,56 g/cm ³
Change in Condition		Relative Density	N/D
Melting Point/Range	N/D	Vapour Density at 20° C	1,7237 (Air = 1,0)
Boiling Point/Range	-24°C (- 11 °F)	Evaporation Rate	N/A
Flash Point (Closed Cup)	-91°C (- 132 °F)	Solubility in / Miscibility w/ Water	Not miscible or difficult to mix.
Flammability (Solid, Gaseous)	N/D	Segregation coefficient (n-octanol/water)	N/D
Ignition Temperature		Viscosity	
Decomposition Temperature	N/D	Dynamic	N/D
		Kinematic	N/D
Danger of explosion:	Product is not explosive. However, formations of explosive air/vapour mixtures are possible.		
Other information	No further relevant information available.		

Section 10: Stability and Reactivity	
Reactivity	No further relevant information available.
Chemical Stability	Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. To avoid thermal decomposition do not overheat.
Possibility of Hazardous Reactions	Used empty containers may contain product gases which form explosive mixtures with air. Reacts with strong oxidizing agents. Danger of receptacles bursting because of high vapour pressure when heated. Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.
Conditions to Avoid	Keep ignition sources away - Do not smoke. Store away from oxidizing agents.
Incompatible Materials	No further relevant information available.
Hazardous Decomposition Products	Carbon monoxide and carbon dioxide
Section 11 - Toxicological Information	
Information on Toxicological Effects	
Irritation / Corrosion	Primary irritant effect: <input checked="" type="checkbox"/> On the skin: No irritant effect. <input checked="" type="checkbox"/> On the eye: No irritating effect.
Sensitization	No sensitizing effects known.
Section 12 - Ecological Information	
Aquatic Toxicity	No further relevant information available.
Persistence and Degradability	No further relevant information available.
Bioaccumulative Potential	Does not accumulate in organisms
Mobility in Soil	No further relevant information available.
Other Adverse Effects	No further relevant information available.
Other Information	Negative ecological effects are, according to the current state of knowledge, not expected.
Section 13 - Disposal Considerations	
Recommendation	Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Uncleaned packaging	Recommendation: Disposal must be made according to official regulations. Recommended cleansing agents: Water, if necessary together with cleansing agents.

Section 14 - Transport Information						
	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Transport Hazard Class(es)		14.4 Packing Group	14.5 Environmental Hazards
DOT	UN1011	1011, BUTANE		Class 2.1 Label 2.1	N/A	No
TDG	UN1011	1011, BUTANE		Class 2.1 F1 Label 2.1	N/A	No
IMO/IMDG	UN1011	1011, BUTANE		Class 2.1 Label 2.1	N/A	No
IATA/ICAO	UN1011	1011, BUTANE		Class 2.1 Label 2.1	N/A	No
Special precautions for user				N/A		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code				N/A		
UN "Model Regulation"				UN1011, BUTANE, 2.1		
Section 15 - Regulatory Information						
SARA						
Section 355 (extremely hazardous substances)					Substance is not listed.	
Section 313 (Specific toxic chemical listings)					Substance is not listed.	
TSCA (Toxic Substances Control Act)					Substance is listed.	
Proposition 65 (California)						
Chemicals known to cause cancer					Substance is not listed.	
Chemicals known to cause reproductive toxicity for females					Substance is not listed.	
Chemicals known to cause reproductive toxicity for males					Substance is not listed.	
Chemicals known to cause developmental toxicity					Substance is not listed.	
EPA (Environmental Protection Agency)					Substance is not listed.	
TLV (Threshold Limit Value established by ACGIH)					Substance is not listed.	
NIOSH-Ca (National Institute for Occupational Safety and Health)					Substance is not listed.	
OSHA-Ca (Occupational Safety & Health Administration)					Substance is not listed.	
Canada						
Canadian Domestic Substances List (DSL)					Substance is listed.	
Canadian Ingredient Disclosure list (limit 0.1%)					Substance is not listed.	
Canadian Ingredient Disclosure list (limit 1%)					Substance is not listed.	
Chemical safety assessment			A Chemical Safety Assessment has not been carried out.			

Section 16 - Other Information	
Last Revision Date:	06.30.2015
Printing Date:	07.17.2015
Disclaimer/Statement of Liability:	The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

Key to abbreviations			
ACGIH	American Conference of Governmental Industrial Hygiene	TWA	Time-Weighted Averages are based on 8h/day, 40h/week exposures
NIOSH	National Institute of Occupational Safety and Health	STEL	Short Term Exposure Limits are based on 15-minute exposures
OSHA	Occupational Safety and Health Administration	STEV	Short Term Exposure Value
MSHA	Mine Safety and Health Administration	TWAEV	Time Weighted Average Exposure Values
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended.	IBC Code	International Bulk Chemical Code
IMDG	International Maritime Dangerous Goods	CEPA	<i>Canadian Environmental Protection Act</i>
WHMIS	Workplace Hazardous Materials Information System	CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
SARA	Superfund Amendments and Reauthorization Act	TPQs	Threshold Planning Quantities
EPCRA RQ	Emergency Planning & Community Right-to-Know Act Reportable Quantities	PBT	Persistent Bioaccumulative Toxic
N/A	Not Applicable	NDA	Not Data Available