SAFETY DATA SHEET

1. Product and Company Identification

Product identifier **Cal-Blast™ (4132-20)**

Other means of identification Not available

Recommended use Cleaner **Recommended**

restrictions None known.

Manufacturer

Nu-Calgon
2008 Altom Court
St. Louis, MO 63146 US
Phone: 314-469-7000 / 800-554-5499
Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Liquefied gas
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1
	Carcinogenicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, repeated exposure	Category 2

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement

Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Harmful if swallowed.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.
Wash thoroughly after handling. Do not eat, drink or smoke when using this product.
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Do not breathe gas. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth.
If on skin: Wash with plenty of water. Specific treatment (see this label). If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
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.
If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
If exposed or concerned: Get medical advice/attention.

Storage	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Keep container tightly closed. Store locked up. Store in a well-ventilated place.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	0.6% of the mixture consists of component(s) of unknown acute oral toxicity.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Methylene chloride		75-09-2	60-100
d-Limonene		5989-27-5	1-5

Composition comments US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
Skin contact	If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see product label). Wash contaminated clothing before reuse.
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.
Ingestion	If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Avoid contact with eyes and skin. Keep out of reach of children. Do not puncture or incinerate container. Do not store at temperatures above 49°C. Wear rubber gloves and chemical splash goggles.

5. Fire Fighting Measures

Suitable extinguishing media	Water. Foam. Carbon dioxide. Dry chemical.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. Cool containers with flooding quantities of water until well after fire is out. Firefighters should wear a self-contained breathing apparatus.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. Containers should be cooled with water to prevent vapor pressure build up. Cool containers with flooding quantities of water until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
Hazardous combustion products	May include and are not limited to: Chlorine gas. Phosgene. Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available.
Sensitivity to static discharge	Not available.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid breathing gas. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewers, basements or confined areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not re-use empty containers. Use only with adequate ventilation. Do not breathe gas. Do not taste or swallow. Avoid contact with eyes, skin and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use personal protective equipment as required. When using, do not eat, drink or smoke. Wash thoroughly after handling. Avoid breathing vapors or mists of this product.

Conditions for safe storage, including any incompatibilities

Store locked up. Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Protect from sunlight. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Do not store at temperatures above 49 °C (120.2°F). Keep away from heat, open flames or other sources of ignition. Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Methylene chloride (CAS 75-09-2)	STEL	125 ppm
	TWA	25 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Methylene chloride (CAS 75-09-2)	TWA	50 ppm

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
d-Limonene (CAS 5989-27-5)	TWA	165.5 mg/m3
		30 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Methylene chloride (CAS 75-09-2)	0.3 mg/l	Dichloromethane	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear chemical goggles.

Skin protection	
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Other	Wear appropriate chemical resistant clothing. As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).
Thermal hazards	Not applicable.
General hygiene considerations	When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and Chemical Properties

Appearance	Clear
Physical state	Gas.
Form	Aerosol
Color	Colorless
Odor	Solvent
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	1.30 - 1.34
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Flame extension	0
Flammability (flash back)	No
Heat of combustion	Level 1

10. Stability and Reactivity

Reactivity	Reacts vigorously with alkaline material or metals.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals. Aerosol containers are unstable at temperatures above 49°C (120.2°F).

Incompatible materials	Strong oxidizing agents. Acids. Caustics.
Hazardous decomposition products	May include and are not limited to: Hydrogen chloride. Oxides of carbon. Chlorine gas. Phosgene.

11. Toxicological Information

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Information on likely routes of exposure

Ingestion Harmful if swallowed.

Inhalation Prolonged inhalation may be harmful. May cause damage to organs by inhalation. May cause irritation to the respiratory system.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Skin irritation. May cause redness and pain. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Harmful if swallowed. May cause an allergic skin reaction. May cause respiratory irritation.

Components	**Species**	**Test Results**
d-Limonene (CAS 5989-27-5)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Inhalation		
LC50	Not available	
Oral		
LD50	Mouse	5600 mg/kg
	Rat	4400 mg/kg
Methylene chloride (CAS 75-09-2)		
Acute		
Dermal		
LD50	Rabbit	2700 mg/kg
Inhalation		
LC50	Guinea pig	11600 ppm, 6 Hours
		40.2 mg/l, 6 Hours
	Mouse	14400 ppm, 7 Hours
		56.2 mg/l, 7 Hours
		51.5 mg/l, 2 Hours
		49.1 mg/l, 6 Hours
	Rat	76000 mg/l/4h
		14250 mg/m3
		2000 mg/l, 15 Minutes
		88 mg/l, 900 Days
		79 mg/l, 2 Hours
		52 mg/l, 6 Hours
LD50	Mouse	16000 ppm, 7 Hours
Oral		
LD50	Rat	1410 mg/kg

Skin corrosion/irritation Causes skin irritation.

Exposure minutes Not available.

Erythema value Not available.

Oedema value Not available.

Serious eye damage/eye irritation Causes serious eye irritation.

Corneal opacity value Not available.

Iris lesion value Not available.

Conjunctival reddening value Not available.

Conjunctival oedema value Not available.

Recover days Not available.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Non-hazardous by WHMIS/OSHA criteria.

Mutagenicity Non-hazardous by WHMIS/OSHA criteria.

Carcinogenicity Suspected of causing cancer.

ACGIH Carcinogens

Methylene chloride (CAS 75-09-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

d-Limonene (CAS 5989-27-5)	Volume 73 - 3 Not classifiable as to carcinogenicity to humans.
Methylene chloride (CAS 75-09-2)	Volume 71 - 2B Possibly carcinogenic to humans.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Methylene chloride (CAS 75-09-2)	Carcinogenic.

US NTP Report on Carcinogens: Anticipated carcinogen

Methylene chloride (CAS 75-09-2)	Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity Non-hazardous by WHMIS/OSHA criteria.

Teratogenicity Non-hazardous by WHMIS/OSHA criteria.

Specific target organ toxicity - single exposure Respiratory tract irritation.

Specific target organ toxicity - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not likely, due to the form of the product.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. May cause damage to organs through prolonged or repeated exposure.

Further information Not available.

Name of Toxicologically Synergistic Products Not available.

12. Ecological Information

Ecotoxicity See below

Components		Species	Test Results
d-Limonene (CAS 5989-27-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	69.6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.619 - 0.796 mg/l, 96 hours
Methylene chloride (CAS 75-09-2)			
Algae	IC50	Algae	500 mg/L, 72 Hours
Crustacea	EC50	Daphnia	1689.5 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1250 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	140.8 - 277.8 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Mobility in general Not available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructions Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste U List: Reference

Methylene chloride (CAS 75-09-2) U080

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

14. Transport Information

General Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number	UN1950
Proper shipping name	Aerosols, flammable, (each not exceeding 1 L capacity)
Hazard class	Limited Quantity - US
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN1950
Proper shipping name	AEROSOLS, flammable, containing substances in Class 6.1, packing group III
Hazard class	Limited Quantity - Canada

IATA/ICAO (Air)

Basic shipping requirements:

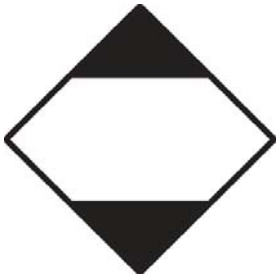
UN number	UN1950
Proper shipping name	Aerosols, flammable, containing substances in Division 6.1, Packing Group III
Hazard class	Limited Quantity - IATA

IMDG (Marine Transport)

Basic shipping requirements:

UN number	UN1950
Proper shipping name	AEROSOLS
Hazard class	Limited Quantity - IMDG

DOT; IMDG; TDG



IATA

15. Regulatory Information

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

Canada CEPA Schedule I: Listed substance

Methylene chloride (CAS 75-09-2) Listed.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

d-Limonene (CAS 5989-27-5) 1 TONNES

Canada WHMIS Ingredient Disclosure: Threshold limits

d-Limonene (CAS 5989-27-5) 1 %
Methylene chloride (CAS 75-09-2) 0.1 %

WHMIS status Controlled

WHMIS classification Class A - Compressed Gas, Class D - Division 1B, 2A, 2B

WHMIS labeling

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Methylene chloride (CAS 75-09-2) 0.1 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Methylene chloride (CAS 75-09-2) Listed.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US CWA Section 307(a)(1) Toxic Pollutants: Listed substance

Methylene chloride (CAS 75-09-2) Listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Methylene chloride (CAS 75-09-2) Listed.

US CAA Section 111 Volatile Organic Compounds: Listed substance

Methylene chloride (CAS 75-09-2) Listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Methylene chloride (CAS 75-09-2) Listed.

US CAA Section 612 SNAP Program: Listed substance

Methylene chloride (CAS 75-09-2) Listed.

US CAA VOCs with Negligible Photochemical Activity: Listed substance

Methylene chloride (CAS 75-09-2) Listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Methylene chloride	75-09-2	60-100

Other federal regulations

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Hazardous Substances (Director's): Listed substance
Methylene chloride (CAS 75-09-2) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Methylene chloride (CAS 75-09-2) Listed.

US - Illinois Chemical Safety Act: Listed substance
Methylene chloride (CAS 75-09-2) Listed.

US - Louisiana Spill Reporting: Listed substance
Methylene chloride (CAS 75-09-2) Listed.

US - Michigan Critical Materials Register: Parameter number
Methylene chloride (CAS 75-09-2) 00075-09-2 Listed.

US - Minnesota Haz Subs: Listed substance
Methylene chloride (CAS 75-09-2) Listed.

US - New Jersey RTK - Substances: Listed substance
Methylene chloride (CAS 75-09-2) Listed.

US - New York Release Reporting: Hazardous Substances: Listed substance
Methylene chloride (CAS 75-09-2) Listed.

US - North Carolina Toxic Air Pollutants: Listed substance
Methylene chloride (CAS 75-09-2) Listed.

US - Pennsylvania RTK - Hazardous Substances: Special hazard
Methylene chloride (CAS 75-09-2) Special hazard.

US - Texas Effects Screening Levels: Listed substance
d-Limonene (CAS 5989-27-5) Listed.
Methylene chloride (CAS 75-09-2) Listed.

US - Washington Chemical of High Concern to Children: Listed substance
Methylene chloride (CAS 75-09-2) Listed.

US. Massachusetts RTK - Substance List
Methylene chloride (CAS 75-09-2) Listed.

US. Pennsylvania RTK - Hazardous Substances
Methylene chloride (CAS 75-09-2) Listed.

US. Rhode Island RTK
Methylene chloride (CAS 75-09-2) Listed.

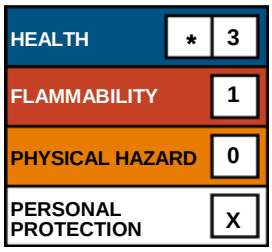
Inventory status

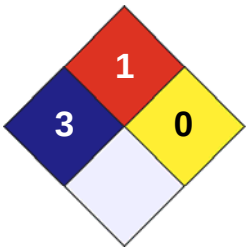
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0





Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.
Issue date	23-March-2015
Effective date	23-March-2015
Expiry date	23-March-2018
Further information	For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.
Prepared by	Nu-Calgon Technical Service Phone: (314) 469-7000
Other information	This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).