

MATERIAL SAFETY DATA SHEET
1. PRODUCT and COMPANY INFORMATION

PRODUCT	CARLON® SPRAY-ON NO WASTE CEMENT	EMERGENCY TELEPHONE NUMBER	CHEMTREC: 800-424-9300
CATALOG NUMBERS	VC9AC5C	TELEPHONE NUMBER FOR INFORMATION	901-252-5000 ext. 8324
MANUFACTURER / SUPPLIER	THOMAS & BETTS CORPORATION	DATE OF PREPARATION or REVISION	January 31, 2014
ADDRESS	8155 T & B BOULEVARD, MEMPHIS, TENNESSEE 38125		

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS #	Percent
Acetone	67-64-1	20 - 55
Tetrahydrofuran	109-99-9	12 - 35
Methyl ethyl ketone	78-93-3	10 - 30
Hydrocarbon, Propane	68476-86-8	12 - 25
Vinyl chloride-vinyl acetate copolymer	9003-22-9	1 - 10
Isoprene-styrene Polymer	25038-32-8	1 - 5

3. HAZARDS IDENTIFICATION

Physical state Liquid.

Appearance Aerosol (clear liquid).

Emergency overview DANGER

Extremely flammable aerosol - contents under pressure. Harmful or fatal if swallowed, can enter lungs and cause damage. Causes skin, eye and respiratory tract irritation. May cause drowsiness or dizziness.

OSHA regulatory status This product is hazardous according to OSHA 29 CFR 1910.1200.

Potential health effects

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

Eyes Causes eye irritation.

Skin Causes skin irritation. May be absorbed through the skin.

Inhalation Causes respiratory tract irritation. May cause drowsiness or dizziness.

Ingestion Harmful if swallowed. May irritate and cause malaise. Swallowing or vomiting of the liquid may result in aspiration into the lungs.

Target organs Central nervous system. Eyes. Respiratory system. Skin. Kidney. Liver.

Chronic effects May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. May cause damage to the liver and kidneys. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Signs and symptoms In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. Irritation of eyes and mucous membranes. Ingestion may cause irritation and malaise.

Potential environmental effects The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

4. FIRST AID MEASURES

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Get medical attention if irritation develops or persists.

Skin contact Immediately flush skin with plenty of water. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if discomfort develops or persists.

Ingestion Call a physician or poison control center immediately. DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration.

Notes to physician Treat symptomatically.

General advice Thermal burns: Flush with plenty of water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

Flammable properties The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Aerosol containers can explode when heated, due to excessive pressure build-up.

Extinguishing media

Suitable extinguishing media Water fog. Foam. Carbon dioxide (CO2). Alcohol resistant foam. Powder.

Unsuitable extinguishing media None.

Protection of firefighters

Protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Keep unnecessary personnel away. Avoid inhalation of vapors and contact with skin and eyes. Use personal protection as recommended in Section 8 of the MSDS.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

Methods for cleaning up ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Should not be released into the environment. Stop the flow of material, if this is without risk. Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb spillage with non-combustible, absorbent material. Clean surface thoroughly to remove residual contamination. This material and its container must be disposed of as hazardous waste.

Other information Clean up in accordance with all applicable regulations.

7. HANDLING and STORAGE

Handling Provide adequate ventilation. Keep away from heat, sparks and open flame. Avoid inhalation of vapors and contact with skin and eyes. The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Use non-sparking hand tools and explosion-proof electrical equipment. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.

Storage Follow rules for flammable liquids. Store in tightly closed original container in a dry, cool and well-ventilated place. Store away from incompatible materials. Periodically test for peroxide formation on long-term storage.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
Tetrahydrofuran (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m3	
		1000 ppm	
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3	
		200 ppm	
Tetrahydrofuran (CAS 109-99-9)	PEL	590 mg/m3	
		200 ppm	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	1800 mg/m3	
		750 ppm	
	TWA	1200 mg/m3	
		500 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3	
		300 ppm	
	TWA	590 mg/m3	
		200 ppm	

MATERIAL SAFETY DATA SHEET

Tetrahydrofuran (CAS 109-99-9)	STEL	295 mg/m ³	
	TWA	100ppm 147 mg/m ³ 50 ppm	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	500 ppm	
	TWA	250 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	100 ppm	
	TWA	50 ppm	
Tetrahydrofuran (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
Tetrahydrofuran (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	2380 mg/m ³ 1000 ppm	
	TWA	1190 mg/m ³ 500 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 mg/m ³ 100 ppm	
	TAW	150 mg/m ³ 50 ppm	
Tetrahydrofuran (CAS 109-99-9)	TWA	300 mg/m ³ 100 ppm	

Mexico. Occupational Exposure Limit Values

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	3000 mg/m ³ 1260 ppm	
	TWA	2400 mg/m ³ 1000 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m ³ 300 ppm	
	TWA	590 mg/m ³ 200 ppm	
Tetrahydro furan (CAS 109-99-9)	STEL	735 mg/m ³ 250 mg/m ³	
	TWA	590 mg/m ³ 200 ppm	

Exposure guidelines
Canada - Alberta OELs: Skin designation

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

US - California OELs: Skin designation

Methyl ethyl ketone (CAS 78-93-3) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

Engineering controls Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

Personal protective equipment

Eye / face protection Wear goggles/face shield. Eye wash fountain is recommended.

Skin protection Wear chemical-resistant, impervious gloves. Suitable gloves can be recommended by the glove supplier. Wear appropriate chemical resistant clothing.

Respiratory protection Use NIOSH-certified, full-face air-supplied (self-contained breathing apparatus or air-line respirators) respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limits.

General hygiene considerations

When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL and CHEMICAL PROPERTIES

Appearance Aerosol (clear liquid).

Physical state Liquid.

Form Aerosol can.

Color Clear.

Odor Ether-like.

Odor threshold Not available.

pH Not available.

Vapor pressure > 60 psi (70°F/21°C)

Vapor density Not available.

Boiling point Not available.

Melting point/Freezing point Not available.

Solubility (water) > 0.5 % (68 °F/20 °C)

Specific gravity 0.88 (H2O=1) (60 °F/15,5 °C)

Flash point Not available.

Flammability limits in air, upper, % by volume Not available.

Flammability limits in air, lower, % by volume Not available.

Auto-ignition temperature Not available.

Evaporation rate 5.5 - 8 (Butyl acetate = 1)

Bulk density 7.34 lb/gal

10. STABILITY and REACTIVITY

Chemical stability Stable at normal conditions.

Conditions to avoid Heat, sparks, flames, elevated temperatures. Protect against direct sunlight.

Incompatible materials Strong oxidizing agents. Alkalis. Amines. Ammonia. Acids. Chlorine. Chlorinated inorganics (potassium, calcium and sodium hypochlorite). Hydrogen peroxide (H2O2).

Hazardous decomposition products Carbon oxides. Hydrogen chloride.

Possibility of hazardous reactions Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 20 ml/kg
<i>Inhalation</i>		
LC50	Rat	> 50 mg/l, 8 hours
<i>Oral</i>		
LD50	Rat	> 5800 mg/kg

MATERIAL SAFETY DATA SHEET

Methyl ethyl ketone (CAS 78-93-3) Acute <i>Dermal</i> LD50 <i>Inhalation</i> LC50 <i>Oral</i> LD50	Rabbit Rat Rat	8 000 mg/kg 11 700 ppm, 4 hours 2 300 – 3 500 mg/kg
Tetrahydrofuran (CAS 109-99-9) Acute <i>Dermal</i> LD50 <i>Inhalation</i> LC50 <i>Oral</i> LD50	Rabbit Rat Rat	2 100 mg/kg 8 0975 mg/l, 1 hours 6 200 mg/l, 2 hours 21 000 mg/l, 3 hours 18 000 – 22 000 mg/m1, 4 hours 1 650 mg/kg

Sensitization Not classified.

Acute effects Harmful or fatal if swallowed, can enter lungs and cause damage.

Local effects Causes skin, eye and respiratory tract irritation.

Chronic effects May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue) and/or damage. May cause damage to the liver and kidneys. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Carcinogenicity

ACGIH Carcinogens

Acetone (CAS 67-64-1) A4 Not classifiable as a human carcinogen.

Tetrahydrofuran (CAS 109-99-9) A3 Confirmed animal carcinogen with unknown relevance to humans.

Epidemiology No epidemiological data is available for this product.

Mutagenicity Acetone, methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.

Reproductive effects Methyl ethyl ketone have been shown to cause embryofetal toxicity and birth defects in laboratory animals.

Acetone and tetrahydrofuran has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

Further information May be absorbed through the skin.

12. ECOLOGICAL INFORMATION

Ecotoxicological data

Components	Species	Test Results
Acetone (CAS 67-64-1) Aquatic Fish LC50	Fathead minnow (Pimephales promelas) Rainbow trout, Donaldson trout (Oncorhynchus mykiss)	> 100 mg/l, 96 hours 4 740-6 330 mg/l, 96 hours
Methyl ethyl ketone (CAS 78-93-3) Aquatic Crustacea EC50 Fish LC50	Water flea (Daphnia magna) Sheepshead minnow (Cyprinodonvariegatus)	4025 - 6440 mg/l, 48 hours > 400 mg/l, 96 hours
Tetrahydrofuran (CAS 109-99-9) Aquatic Fish LC50	Fathead minnow (Pimephales promelas)	2 160 mg/l, 96 Hours

MATERIAL SAFETY DATA SHEET

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Environmental effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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

Bioaccumulation / Accumulation No data available.

Partition coefficient

Acetone (CAS 67-64-1) -0.24

Methyl ethyl ketone (CAS 78-93-3) 0.29

Tetrahydrofuran (CAS 109-99-9) 0.46

Mobility in environmental media The product is miscible with water. May spread in water systems.

13. DISPOSAL CONSIDERATION

Waste codes D001

D035: Waste Methyl ethyl ketone

F003: Waste Spent non-halogenated solvents

F005: Waste spent non-halogenated solvents

US RCRA Hazardous Waste U List: Reference

Acetone (CAS 67-64-1) U002

Methyl ethyl ketone (CAS 78-93-3) U159

Tetrahydrofuran (CAS 109-99-9) U213

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations. This material and its container must be disposed of as hazardous waste.

Waste from residues / unused products Dispose of waste and residues in accordance with local authority requirements.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT

UN number UN1950

Basic shipping requirements:

Proper shipping name Aerosols

Hazard class 2.1

Marine pollutant No

Environmental hazards

Packaging exceptions 306

Additional information:

Packaging non bulk None

Packaging bulk None

IATA

UN number UN1950

UN proper shipping name Aerosols

Transport hazard class(es) 2.1

Environmental hazards No

Labels required 2.1

ERG code 10L

IMDG

UN number UN1950

UN proper shipping name AEROSOLS

Transport hazard class(es) 2.1

Subsidiary class(es) 5T

Environmental hazards

Marine pollutant No

Labels required 2.1

TDG

UN number UN1950

Proper shipping name AEROSOLS

Hazard class 2.1

Marine pollutant No

Special provisions 80

Labels required 2.1

General DOT Class Consumer Commodity ORM-D up to 1 liter (0.3 gallon)

15. REGULATORY INFORMATION

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

Acetone: 5000

Tetrahydrofuran: 1000

Methyl ethyl ketone: 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - Yes

Pressure Hazard - No

Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A) No

SARA 311/312 Hazardous chemical Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Controlled

WHMIS classification B2 - Flammable Liquids

D1A - Immediate/Serious-VERY TOXIC

D2A - Other Toxic Effects-VERY TOXIC

D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

Country(s) or region

Australia

Canada

Canada

China

Europe

Europe

Japan

Korea

New Zealand

Philippines

United States & Puerto Rico

Inventory name

Australian Inventory of Chemical Substances (AICS)

Domestic Substances List (DSL)

Non-Domestic Substances List (NDSL)

Inventory of Existing Chemical Substances in China (IECSC)

European Inventory of Existing Commercial Chemical Substances (EINECS)

European List of Notified Chemical Substances (ELINCS)

Inventory of Existing and New Chemical Substances (ENCS)

Existing Chemicals List (ECL)

New Zealand Inventory

Philippine Inventory of Chemicals and Chemical Substances (PICCS)

Toxic Substances Control Act (TSCA) Inventory

On inventory (yes/no)*

Yes

Yes

No

Yes

No

No

No

Yes

Yes

Yes

Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

State regulations

US - California Hazardous Substances (Director's): Listed substance

Acetone (CAS 67-64-1) Listed.
 Methyl ethyl ketone (CAS 78-93-3) Listed.
 Tetrahydrofuran (CAS 109-99-9) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance Not listed.

US - New Jersey RTK - Substances: Listed substance

Acetone (CAS 67-64-1) Listed.
 Methyl ethyl ketone (CAS 78-93-3) Listed.
 Tetrahydrofuran (CAS 109-99-9) Listed.

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1) Listed.
 Methyl ethyl ketone (CAS 78-93-3) Listed.
 Tetrahydrofuran (CAS 109-99-9) Listed.

US. New Jersey Worker and Community Right-to-Know Act Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Acetone (CAS 67-64-1) Listed.
 Methyl ethyl ketone (CAS 78-93-3) Listed.
 Tetrahydrofuran (CAS 109-99-9) Listed.

16. OTHER INFORMATION

	HEALTH	HMIS	NFPA	KEY
		2	2	4 = SEVERE
	FLAMMABILITY	3	3	3 = SERIOUS
	INSTABILITY		0	2 = MODERATE
	PHYSICAL HAZARD	0		1 = SLIGHT
				0 = MINIMAL

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