Nu-Calgon

10/24/16

SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	**Pan-Spray (White) (4296-50)**
Other means of identification	Not available
Recommended use	Coating
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)

Nu-Calgon Cal Spray Pan Spray White

2. Hazards Identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Liquefied gas
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Carcinogenicity	Category 2
	Reproductive toxicity (the unborn child)	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements

Signal word Danger

Hazard statement

Suspected of causing cancer.
Suspected of damaging the unborn child.
Causes skin irritation.
Causes serious eye irritation.
Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Wash thoroughly after handling.
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.
Do not breathe gas. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response

If exposed or concerned: Get medical advice/attention.
If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.
Specific treatment (see this label). Take off contaminated clothing and wash it 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.

Storage

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

Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Not applicable.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Heptane		142-82-5	10 - 30
Methane, oxybis-		115-10-6	10 - 30
Toluene		108-88-3	10 - 30
Acetone		67-64-1	5 - 10
Isobutane		75-28-5	5 - 10
Propane		74-98-6	5 - 10
Titanium oxide		13463-67-7	5 - 10
2-Propanol, 1-methoxy-, acetate		108-65-6	1 - 5
Aluminum hydroxide		21645-51-2	1 - 5
Distillates, petroleum, steam-cracked, polymers with light steam-cracked petroleum naphtha		68410-16-2	1 - 5
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl) dimethyl, salts with bentonite		68953-58-2	1 - 5
Stoddard solvent		8052-41-3	1 - 5
2-Pentanone, 4-methyl-		108-10-1	0.1 - 1

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 inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

Skin contact If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Specific treatment (see product label). Take off contaminated clothing and wash it 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 In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth. Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Most important symptoms/effects, acute and delayed Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause drowsiness or dizziness. 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. 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. IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance. Do not puncture or incinerate container. Do not store at temperatures above 49°C. Keep away from sources of ignition. No smoking.

5. Fire Fighting Measures

Suitable extinguishing media Foam. Dry powder. Carbon dioxide (CO2). Carbon dioxide. Dry chemical. Foam.

Unsuitable extinguishing media Water. Do not use water jet as an extinguisher, as this will spread the fire.

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. Containers should be cooled with water to prevent vapor pressure build up. 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	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.
Hazardous combustion products	May include and are not limited to: 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. Ventilate closed spaces before entering them. 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.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

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. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. 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. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe gas. Avoid contact during pregnancy/while nursing. Avoid contact with eyes, skin and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Use good industrial hygiene practices in handling this material.
Conditions for safe storage, including any incompatibilities	Level 1 Aerosol. Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. 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). Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits

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

Components	Type	Value	Form
2-Pentanone, 4-methyl- (CAS 108-10-1)	PEL	410 mg/m3 100 ppm	
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm	
Heptane (CAS 142-82-5)	PEL	2000 mg/m3 500 ppm	
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm	
Stoddard solvent (CAS 8052-41-3)	PEL	2900 mg/m3	

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

Components	Type	Value	Form
		500 ppm	
Titanium oxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2-Pentanone, 4-methyl- (CAS 108-10-1)	STEL	75 ppm	
	TWA	20 ppm	
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Aluminum hydroxide (CAS 21645-51-2)	TWA	1 mg/m3	Respirable fraction.
Heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	
Isobutane (CAS 75-28-5)	STEL	1000 ppm	
Stoddard solvent (CAS 8052-41-3)	TWA	100 ppm	
Titanium oxide (CAS 13463-67-7)	TWA	10 mg/m3	
Toluene (CAS 108-88-3)	TWA	20 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-Pentanone, 4-methyl- (CAS 108-10-1)	STEL	300 mg/m3
		75 ppm
	TWA	205 mg/m3
		50 ppm
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Heptane (CAS 142-82-5)	Ceiling	1800 mg/m3
		440 ppm
	TWA	350 mg/m3
		85 ppm
Isobutane (CAS 75-28-5)	TWA	1900 mg/m3
		800 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3
		1000 ppm
Stoddard solvent (CAS 8052-41-3)	Ceiling	1800 mg/m3
	TWA	350 mg/m3
Toluene (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
2-Propanol, 1-methoxy-, acetate (CAS 108-65-6)	TWA	50 ppm

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Methane, oxybis- (CAS 115-10-6)	TWA	1880 mg/m3
		1000 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Pentanone, 4-methyl- (CAS 108-10-1)	1 mg/l	Methyl isobutyl ketone	Urine	*
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

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

Exposure guidelines Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH.

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 safety glasses with side shields (or 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 Wear positive pressure self-contained breathing apparatus (SCBA). Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

Thermal hazards Not applicable.

General hygiene considerations When using, do not eat, drink or smoke. 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.

9. Physical and Chemical Properties

Appearance	Spray
Physical state	Gas.
Form	Aerosol
Color	White.
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	0.88 - 0.92
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	55 - 65 psig
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	350 - 500 cP
Other information	
Flame extension	> 100 cm
Flammability (flash back)	No

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
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	Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological Information

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

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Prolonged inhalation may be harmful. May cause damage to organs by inhalation. Narcotic effects.
Skin contact	Causes skin irritation.
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. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity Narcotic effects.

Components	Species	Test Results
2-Pentanone, 4-methyl- (CAS 108-10-1)		
Acute		
Dermal		
LD50	Rabbit	16000 mg/kg
Inhalation		
LC50	Rat	8.2 mg/l, 4 Hours
Oral		
LD50	Mouse	1200 mg/kg
	Rat	2080 mg/kg
2-Propanol, 1-methoxy-, acetate (CAS 108-65-6)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Inhalation		
LC50	Rat	> 5320 ppm, 4 hours
Oral		
LD50	Rat	8532 mg/kg

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	15800 mg/kg
		20 ml/kg
Inhalation		
LC50	Mouse	44000 mg/m3/4H
	Rat	76 mg/l, 4 Hours
		50.1 mg/l, 8 Hours
		39 mg/l/4h
Oral		
LD50	Human	2857 mg/kg
	Mouse	3000 mg/kg
	Rabbit	5340 mg/kg
	Rat	5800 mg/kg
Aluminum hydroxide (CAS 21645-51-2)		
Acute		
Dermal		
LD50		
Inhalation		
LC50	Not available	
Oral		
LD50		
	Rat	5000 mg/kg
Distillates, petroleum, steam-cracked, polymers with light steam-cracked petroleum naphtha (CAS 68410-16-2)		
LC50		
Not available.		
LD50		
Not available.		
Heptane (CAS 142-82-5)		
Acute		
Inhalation		
LC50	Rat	103 mg/l, 4 Hours
LD50	Mouse	75 mg/l, 2 Hours
Oral		
LD50	Rat	15000 mg/kg
Isobutane (CAS 75-28-5)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Rat	658 mg/l/4h
Oral		
LD50	Not available	
Methane, oxybis- (CAS 115-10-6)		
Acute		
Inhalation		
LC50	Mouse	494 ppm, 15 Minutes
		386 ppm, 30 Minutes
	Rat	308.5 mg/l, 4 Hours
Oral		
LD50	Not available	

Components	Species	Test Results
Propane (CAS 74-98-6)		
Acute		
Inhalation		
LC50	Rat	> 1442.8 mg/l, 15 Minutes
Oral		
LD50	Not available	
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl) dimethyl, salts with bentonite (CAS 68953-58-2)		
Acute		
Inhalation		
LC50	Rat	12.6 mg/l/4h
Oral		
LD50	Rat	5000 mg/kg
Stoddard solvent (CAS 8052-41-3)		
Acute		
Dermal		
LD50	Rabbit	> 3000 mg/kg
Inhalation		
LC50	Rat	> 5500 mg/m3
Oral		
LD50	Rat	> 5000 mg/kg
Titanium oxide (CAS 13463-67-7)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	24000 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	12196 mg/kg
		12125 mg/kg
		8390 mg/kg
		14.1 ml/kg
Inhalation		
LC50	Mouse	7100 mg/l, 4 Hours
		5320 ppm, 8 Hours
		400 ppm, 24 Hours
	Rat	26700 ppm, 1 Hours
		<= 28800 mg/m³, 4 Hours
		12200 ppm, 2 Hours
		8000 ppm, 4 Hours
		12.5 mg/l/4h
Oral		
LD50	Rat	> 5580 mg/kg
		636 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	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Suspected of causing cancer.

ACGIH Carcinogens

2-Pentanone, 4-methyl- (CAS 108-10-1)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Acetone (CAS 67-64-1)	A4 Not classifiable as a human carcinogen.
Aluminum hydroxide (CAS 21645-51-2)	A4 Not classifiable as a human carcinogen.
Titanium oxide (CAS 13463-67-7)	A4 Not classifiable as a human carcinogen.
Toluene (CAS 108-88-3)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Pentanone, 4-methyl- (CAS 108-10-1)	Volume 101 - 2B Possibly carcinogenic to humans.
Stoddard solvent (CAS 8052-41-3)	Volume 47 - 3 Not classifiable as to carcinogenicity to humans.
Titanium oxide (CAS 13463-67-7)	Volume 47, Volume 93 - 2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	Volume 47, Volume 71 - 3 Not classifiable as to carcinogenicity to humans.

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

2-Pentanone, 4-methyl- (CAS 108-10-1)	Carcinogenic.
Benzene (CAS 71-43-2)	Carcinogenic.
Crystalline silica (CAS 14808-60-7)	Carcinogenic.
Titanium oxide (CAS 13463-67-7)	Carcinogenic.

Reproductive toxicity	Suspected of damaging the unborn child.
Teratogenicity	Toluene (benzene, methyl-) has caused fetotoxicity (reduced fetal weight), behavioural effects (effects on learning and memory) and hearing loss (in males). These effects have been observed in the offspring of rats exposed by inhalation to 1200 or 1800 ppm toluene. These effects were observed in the absence of maternal toxicity.
Specific target organ toxicity - single exposure	Narcotic effects.
Specific target organ toxicity - repeated exposure	Causes 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. Causes 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
2-Pentanone, 4-methyl- (CAS 108-10-1)			
Crustacea	EC50	Daphnia	170 mg/L, 48 Hours
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	492 - 593 mg/l, 96 hours
2-Propanol, 1-methoxy-, acetate (CAS 108-65-6)			
Crustacea	EC50	Daphnia	500 mg/L, 48 Hours
Acetone (CAS 67-64-1)			
Crustacea	EC50	Daphnia	13999 mg/L, 48 Hours

Components		Species	Test Results
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	21.6 - 23.9 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 mg/l, 96 hours
Heptane (CAS 142-82-5)			
Aquatic			
Fish	LC50	Mozambique tilapia (Tilapia mossambica)	375 mg/l, 96 hours
Titanium oxide (CAS 13463-67-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours
Fish	LC50	Mummichog (Fundulus heteroclitus)	> 1000 mg/l, 96 hours
Toluene (CAS 108-88-3)			
Algae	IC50	Algae	433 mg/L, 72 Hours
Crustacea	EC50	Daphnia	7.645 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	8.11 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 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. Dispose of contents/container in accordance with local/regional/national/international regulations.

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

2-Pentanone, 4-methyl- (CAS 108-10-1)	U161
Acetone (CAS 67-64-1)	U002
Toluene (CAS 108-88-3)	U220

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

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

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number UN1950

Proper shipping name AEROSOLS, flammable

Hazard class Limited Quantity - Canada

IATA/ICAO (Air)

Basic shipping requirements:

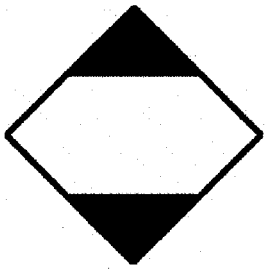
UN number	UN1950
Proper shipping name	Aerosols, flammable
Hazard class	Limited Quantity - IATA

IMDG (Marine Transport)

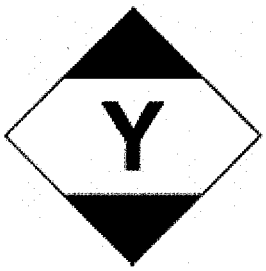
Basic shipping requirements:

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 DSL Challenge Substances: Listed substance

Isobutane (CAS 75-28-5)	Listed.

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

2-Pentanone, 4-methyl- (CAS 108-10-1)	1 TONNES 2-
Propanol, 1-methoxy-, acetate (CAS 108-65-6)	1 TONNES Heptane
(CAS 142-82-5)	1 TONNES
Isobutane (CAS 75-28-5)	1 TONNES
Methane, oxybis- (CAS 115-10-6)	1 TONNES
Propane (CAS 74-98-6)	1 TONNES
Stoddard solvent (CAS 8052-41-3)	1 TONNES
Toluene (CAS 108-88-3)	1 TONNES

Canada WHMIS Ingredient Disclosure: Threshold limits

2-Pentanone, 4-methyl- (CAS 108-10-1)	1 %
Acetone (CAS 67-64-1)	1 %
Heptane (CAS 142-82-5)	1 %
Stoddard solvent (CAS 8052-41-3)	1 %
Toluene (CAS 108-88-3)	1 %

WHMIS status Controlled

WHMIS classification Class A - Compressed Gas, Class B - Division 5 - Flammable Aerosol, Class D - Division 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

2-Pentanone, 4-methyl- (CAS 108-10-1)	1.0 %
Toluene (CAS 108-88-3)	1.0 %

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

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Toluene (CAS 108-88-3)	Listed.

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

Not regulated.

US CWA Section 311 Hazardous Substances: Listed substance

Toluene (CAS 108-88-3)	Listed.

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

Toluene (CAS 108-88-3)	Listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Toluene (CAS 108-88-3)	Listed.

US CAA Section 111 Volatile Organic Compounds: Listed substance

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Toluene (CAS 108-88-3)	Listed.

US CAA Section 112(r) Accidental Release Prevention - Regulated Flammable Substance: Listed substance

Isobutane (CAS 75-28-5)	Regulated flammable substance.
Methane, oxybis- (CAS 115-10-6)	Regulated flammable substance.
Propane (CAS 74-98-6)	Regulated flammable substance.

US CAA Section 112(r) Accidental Release Prevention: Threshold quantity

Isobutane (CAS 75-28-5)	10000 LBS
Methane, oxybis- (CAS 115-10-6)	10000 LBS
Propane (CAS 74-98-6)	10000 LBS

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

Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.

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

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Toluene (CAS 108-88-3)	Listed.

US CAA Section 612 SNAP Program: Listed substance

Acetone (CAS 67-64-1)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.

US CAA VOCs with Negligible Photochemical Activity: Listed substance

Acetone (CAS 67-64-1)	Listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes 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.
Toluene	108-88-3	10 - 30

Other federal regulations

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)	Hazardous substance Priority pollutant Toxic pollutant

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 and birth defects or other reproductive harm.

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

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Heptane (CAS 142-82-5)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Benzene (CAS 71-43-2)	Listed.
Crystalline silica (CAS 14808-60-7)	Listed.
Titanium oxide (CAS 13463-67-7)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - Illinois Chemical Safety Act: Listed substance

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - Louisiana Spill Reporting List: Reportable quantity (total mass into atmosphere)

2-Pentanone, 4-methyl- (CAS 108-10-1)	1000 LBS

US - Louisiana Spill Reporting: Listed substance

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - Michigan Critical Materials Register: Parameter number

Toluene (CAS 108-88-3)	00108-88-3 Listed.

US - Minnesota Haz Subs: Listed substance

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Titanium oxide (CAS 13463-67-7)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - New Jersey RTK - Substances: Listed substance

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Titanium oxide (CAS 13463-67-7)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - New York Release Reporting: Hazardous Substances: Listed substance

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - North Carolina Toxic Air Pollutants: Listed substance

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - Texas Effects Screening Levels: Listed substance

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.

2-Propanol, 1-methoxy-, acetate (CAS 108-65-6)	Listed.
Acetone (CAS 67-64-1)	Listed.
Aluminum hydroxide (CAS 21645-51-2)	Listed.
Distillates, petroleum, steam-cracked, polymers with light steam-cracked petroleum naphtha (CAS 68410-16-2)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl) dimethyl, salts with bentonite (CAS 68953-58-2)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Titanium oxide (CAS 13463-67-7)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - Washington Chemical of High Concern to Children: Listed substance

Toluene (CAS 108-88-3)	Listed.

US. Massachusetts RTK - Substance List

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Titanium oxide (CAS 13463-67-7)	Listed.
Toluene (CAS 108-88-3)	Listed.

US. Pennsylvania RTK - Hazardous Substances

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Titanium oxide (CAS 13463-67-7)	Listed.
Toluene (CAS 108-88-3)	Listed.

US. Rhode Island RTK

2-Pentanone, 4-methyl- (CAS 108-10-1)	Listed.
Acetone (CAS 67-64-1)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Propane (CAS 74-98-6)	Listed.
Toluene (CAS 108-88-3)	Listed.

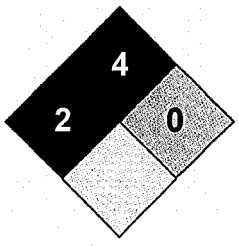
Inventory status

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	27-February-2015
Effective date	28-February-2015
Expiry date	28-February-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).