



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name Pan-Spray (White) 4296-50
CAS # Mixture
Product use Coating
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

Emergency overview DANGER
Extremely flammable. Contents under pressure. Containers may explode when heated.
May cause chronic toxic effects.
EYE AND SKIN IRRITANT.

Potential short term health effects

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

Eyes May cause irritation.

Skin May cause irritation.

Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

Ingestion May cause stomach distress, nausea or vomiting.

Target organs Eyes, Kidney, Liver, Respiratory system, Skin.

Chronic effects Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and symptoms Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

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

Potential environmental effects Components of this product have been identified as having potential environmental concerns.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Propane	74-98-6	7 - 13
Acetone	67-64-1	5 - 10
Titanium oxide	13463-67-7	5 - 10
Isobutane	75-28-5	3 - 7
Heptane	142-82-5	10 - 30
Methane, oxybis-	115-10-6	10 - 30
Toluene	108-88-3	10 - 30
2-Propanol, 1-methoxy-, acetate	108-65-6	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 montmorillonite	68911-87-5	1 - 5

4. First Aid Measures

First aid procedures

Eye contact Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

Skin contact Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.

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.
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Symptoms may be delayed.
General advice	Do not puncture or incinerate container. Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Flammable by WHMIS/OSHA criteria. Containers may explode when heated.
Extinguishing media	
Suitable extinguishing media	Carbon dioxide. Dry chemical. Foam.
Unsuitable extinguishing media	Water.
Protection of firefighters	
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.
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
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	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Remove sources of ignition. Although the chance of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, absorb spilled material with a non-flammable absorbent such as sand or vermiculite.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.
Storage	Keep out of reach of children. Do not store at temperatures above 49 °C (120.2°F). Keep away from heat, open flames or other sources of ignition.

8. Exposure Controls / Personal Protection

Exposure limits Ingredient(s)	Exposure Limits
2-Propanol, 1-methoxy-, acetate	ACGIH-TLV Not established OSHA-PEL Not established
Acetone	ACGIH-TLV TWA: 500 ppm STEL: 750 ppm OSHA-PEL TWA: 1000 ppm
Distillates, petroleum, steam-cracked, polymers with light steam-cracked petroleum naphtha	ACGIH-TLV Not established OSHA-PEL Not established
Heptane	ACGIH-TLV TWA: 400 ppm STEL: 500 ppm OSHA-PEL TWA: 500 ppm
Isobutane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL Not established
Methane, oxybis-	ACGIH-TLV Not established OSHA-PEL Not established
Propane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL TWA: 1000 ppm
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, salts with montmorillonite	ACGIH-TLV Not established OSHA-PEL Not established
Titanium oxide	ACGIH-TLV TWA: 10 mg/m ³ OSHA-PEL TWA: 15 mg/m ³
Toluene	ACGIH-TLV TWA: 20 ppm Skin: 50 ppm OSHA-PEL TWA: 200 ppm Ceiling: 300 ppm
Engineering controls	General ventilation normally adequate.

Personal protective equipment

Eye / face protection	Wear safety glasses with side shields.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Washing with soap and water after use is recommended as good hygienic practice to prevent possible eye irritation from hand contact.

9. Physical and Chemical Properties

Appearance	Aerosol.
Color	White.
Form	Aerosol.
Odor	Solvent
Odor threshold	Not available
Physical state	Gas
pH	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Pour point	Not available
Evaporation rate	> 1 (BuAc=1)
Flash point	Not available
Auto-ignition temperature	474.80 - 896.00 °F (246 - 480 °C)
Flammability limits in air, lower, % by volume	1
Flammability limits in air, upper, % by volume	12.8
Vapor pressure	55 - 65 psig @ 20°C
Vapor density	> 1
Specific gravity	0.77 - 0.81
Octanol/water coefficient	Not available
Solubility (H₂O)	Negligible
Percent volatile	79 - 80

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	Aerosol containers are unstable at temperatures above 49°C (120.2°F). Do not mix with other chemicals.
Incompatible materials	Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
2-Propanol, 1-methoxy-, acetate	Not available
Acetone	Not available
Distillates, petroleum, steam-cracked, polymers with light steam-cracked petroleum naphtha	Not available
Heptane	Not available
Isobutane	658 mg/l/4h rat
Methane, oxybis-	308.5 mg/l/4h rat
Propane	Not available
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, salts with montmorillonite	Not available
Titanium oxide	Not available
Toluene	12.5 mg/l/4h rat

Component analysis - Oral LD50

Ingredient(s)	LD50
2-Propanol, 1-methoxy-, acetate	8532 mg/kg rat
Acetone	5800 mg/kg rat; 5340 mg/kg rabbit; 3000 mg/kg mouse; 2857 mg/kg human
Distillates, petroleum, steam-cracked, polymers with light steam-cracked petroleum naphtha	Not available
Heptane	15000 mg/kg rat
Isobutane	Not available
Methane, oxybis-	Not available
Propane	Not available
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, salts with montmorillonite	Not available
Titanium oxide	24000 mg/kg rat
Toluene	636 mg/kg rat

Effects of acute exposure

Eye	May cause irritation.
Skin	May cause irritation.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	High concentrations of pigment-grade (powdered) and ultrafine titanium dioxide (titanium oxide) dust have caused respiratory tract cancer in rats exposed by inhalation and intratracheal instillation.

ACGIH - Threshold Limit Values - Carcinogens

Acetone	67-64-1	A4 - Not Classifiable as a Human Carcinogen
Titanium oxide	13463-67-7	A4 - Not Classifiable as a Human Carcinogen
Toluene	108-88-3	A4 - Not Classifiable as a Human Carcinogen

IARC - Group 2B (Possibly Carcinogenic to Humans)

Titanium oxide	13463-67-7	Monograph 93 [in preparation]; Monograph 47 [1989]
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IARC - Group 3 (Not Classifiable)

Toluene	108-88-3	Monograph 71 [1999]; Monograph 47 [1989]
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Mutagenicity Non-hazardous by WHMIS/OSHA criteria.

Reproductive effects Non-hazardous by WHMIS/OSHA criteria.

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.

Name of Toxicologically Synergistic Products Not available

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Algae - Acute Toxicity Data

Toluene 108-88-3 96 Hr EC50 *Pseudokirchneriella subcapitata*: >433 mg/L; 72 Hr EC50 *Pseudokirchneriella subcapitata*: 12.5 mg/L [static]

Ecotoxicity - Freshwater Fish - Acute Toxicity Data

2-Propanol, 1-methoxy-, acetate 108-65-6 96 Hr LC50 *Pimephales promelas*: 161 mg/L [static]
Acetone 67-64-1 96 Hr LC50 *Oncorhynchus mykiss*: 4.74 - 6.33 mL/L; 96 Hr LC50 *Pimephales promelas*: 6210 - 8120 mg/L [static]; 96 Hr LC50 *Lepomis macrochirus*: 8300 mg/L
Heptane 142-82-5 96 Hr LC50 *Cichlid fish*: 375.0 mg/L
Toluene 108-88-3 96 Hr LC50 *Pimephales promelas*: 15.22-19.05 mg/L [flow-through] (1 day old); 96 Hr LC50 *Pimephales promelas*: 12.6 mg/L [static]; 96 Hr LC50 *Oncorhynchus mykiss*: 5.89-7.81 mg/L [flow-through]; 96 Hr LC50 *Oncorhynchus mykiss*: 14.1-17.16 mg/L [static]; 96 Hr LC50 *Oncorhynchus mykiss*: 5.8 mg/L [semi-static]; 96 Hr LC50 *Lepomis macrochirus*: 11.0-15.0 mg/L [static]; 96 Hr LC50 *Oryzias latipes*: 54 mg/L [static]; 96 Hr LC50 *Poecilia reticulata*: 28.2 mg/L [semi-static]; 96 Hr LC50 *Poecilia reticulata*: 50.87-70.

Ecotoxicity - Water Flea - Acute Toxicity Data

2-Propanol, 1-methoxy-, acetate 108-65-6 48 Hr EC50 *Daphnia magna*: >500 mg/L
Acetone 67-64-1 48 Hr EC50 *Daphnia magna*: 10294 - 17704 mg/L [Static]; 48 Hr EC50 *Daphnia magna*: 12600 - 12700 mg/L
Heptane 142-82-5 24 Hr EC50 *Daphnia magna*: >10 mg/L
Toluene 108-88-3 48 Hr EC50 *Daphnia magna*: 5.46 - 9.83 mg/L [Static]; 48 Hr EC50 *Daphnia magna*: 11.5 mg/L

Persistence / degradability Not available
Bioaccumulation / accumulation Not available
Mobility in environmental media Not available
Environmental effects Not available
Aquatic toxicity Not available
Partition coefficient Not available
Chemical fate information Not available
Other adverse effects Not available

13. Disposal Considerations

Disposal instructions Dispose in accordance with all applicable regulations.
Waste from residues / unused products Not available
Contaminated packaging Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Consumer Commodity ORM-D

15. Regulatory Information

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

Canada - CEPA - High Priority Chemicals as Identified by DSL Categorization

Isobutane 75-28-5 Batch 4, published November 17, 2007

Canada - WHMIS - Ingredient Disclosure List

Acetone	67-64-1	1 %
Heptane	142-82-5	1 %
Toluene	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



Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

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

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Acetone	67-64-1	5000 Lb final RQ; 2270 kg final RQ
Toluene	108-88-3	1000 Lb final RQ; 454 kg final RQ

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Toluene 108-88-3 1.0 % de minimis concentration

U.S. - CWA (Clean Water Act) - Hazardous Substances

Toluene 108-88-3 Present

U.S. - CWA (Clean Water Act) - Priority Pollutants

Toluene 108-88-3 Present

U.S. - CWA (Clean Water Act) - Toxic Pollutants

Toluene 108-88-3 Present

CERCLA (Superfund) reportable quantity

Toluene: 1000.0000
 Acetone: 5000.0000
 2-Pentanone, 4-methyl-: 5000.0000

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

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes
Clean Air Act (CAA) Not available
Clean Water Act (CWA) Not available
State regulations WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Acetone	67-64-1	Present
Heptane	142-82-5	Present
Toluene	108-88-3	Present

U.S. - California - Proposition 65 - Developmental Toxicity

Toluene	108-88-3	developmental toxicity, initial date 1/1/91
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U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
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U.S. - Illinois - Toxic Air Contaminants

Toluene	108-88-3	Present
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U.S. - Louisiana - Reportable Quantity List for Pollutants

Acetone	67-64-1	5000 Lb final RQ; 2270 kg final RQ
Toluene	108-88-3	100 Lb RQ (unauthorized emissions based on total mass emitted into the atmosphere - see regulatory text for applicable parishes. The combined emission of highly reactive volatile organic compounds (acetaldehyde, butenes, ethylene, propylene, toluene, xylene, and/or isoprene) shall be totaled to determine if a RQ has been exceeded)

U.S. - Massachusetts - Right To Know List

Acetone	67-64-1	Present
Heptane	142-82-5	Present
Isobutane	75-28-5	Present
Methane, oxybis-	115-10-6	Present
Propane	74-98-6	Present
Titanium oxide	13463-67-7	Present
Toluene	108-88-3	Present

U.S. - Michigan - Critical Materials List

Toluene	108-88-3	100 Lb Annual usage threshold
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U.S. - Minnesota - Hazardous Substance List

Acetone	67-64-1	Present
Heptane	142-82-5	Present
Methane, oxybis-	115-10-6	Present
Propane	74-98-6	Simple asphyxiant
Titanium oxide	13463-67-7	Present (dust)
Toluene	108-88-3	Skin

U.S. - New Jersey - Right to Know Hazardous Substance List

Acetone	67-64-1	sn 0006
Heptane	142-82-5	sn 1339
Isobutane	75-28-5	sn 1040
Methane, oxybis-	115-10-6	sn 0758
Propane	74-98-6	sn 1594
Titanium oxide	13463-67-7	sn 1861
Toluene	108-88-3	sn 1866

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Acetone	67-64-1	5000 Lb RQ (air); 1 lb RQ (land/water)
Toluene	108-88-3	1000 Lb RQ (air); 1 lb RQ (land/water)

U.S. - North Carolina - Control of Toxic Air Pollutants

Toluene	108-88-3	4.7 mg/m3 (chronic toxicants); 56 mg/m3 (acute irritants)
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U.S. - Pennsylvania - RTK (Right to Know) List

Acetone	67-64-1	Environmental hazard
Heptane	142-82-5	Present
Isobutane	75-28-5	Present
Methane, oxybis-	115-10-6	Present
Propane	74-98-6	Present
Titanium oxide	13463-67-7	Present
Toluene	108-88-3	Environmental hazard

U.S. - Rhode Island - Hazardous Substance List

Acetone	67-64-1	Toxic; Flammable
Heptane	142-82-5	Toxic; Flammable
Methane, oxybis-	115-10-6	Flammable
Propane	74-98-6	Toxic; Flammable
Titanium oxide	13463-67-7	Toxic
Toluene	108-88-3	Toxic (skin); Flammable (skin)

Inventory name

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 HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 2
Flammability	4
Physical Hazard	0
Personal Protection	B

**Disclaimer**

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.

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Prepared by

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Other information

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.