

MATERIAL SAFETY DATA SHEET

According to Work Health and Safety Regulations 2011 and National Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals

Version 1.0

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SDS Record Number: CSSS-TCO-010-117196

1. Identification of the material and supplier

Material name: Super Insulation (Aerosol)
Other Names: -
Recommended use: Protection against moisture.
Manufacturer:
Supplier(Manufacturer): Nano ProTech Australia Pty Ltd
Address: Suite 1, Level 1 255 Blackburn Rd
Mount Waverly, Vic 3149, AUSTRALIA
Contact person (Name): Aksel Waechter
Contact person(E-mail): msds_enquiries@nanoprotech.com.au
Telephone: +61 423 132 239 (all hours)
Fax: -
Web site www.nanoprotech.com.au
Emergency number: Poisons Information Centre: Phone 13 1126 from anywhere in Australia

2. Hazards identification

GHS classification:

Physical hazards:	Flammable aerosols	Category 1
Health hazards:	Not classified	
Environmental hazards:	Aquatic Chronic	Category 3

GHS label elements:

Hazard Pictograms: :



Signal word: Danger
Hazard statement: Extremely flammable aerosol.
Harmful to aquatic life with long lasting effects.

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.
Avoid release to the environment.

Response: Not applicable.

Storage: Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F.

Disposal: Dispose of contents/container in corroding with local regulation.

Specific hazards: Not applicable.

3. Composition/information on ingredients

Components	CAS No.	Percent
butane	106-97-8	0-<54%
propane	74-98-6	0-<54%
Naphtha (petroleum), hydrotreated light	64742-49-0	10-15%
Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts	93820-57-6	0.1-<1%
Sulfonic acids, petroleum, sodium salts	68608-26-4	0.1-<1%
diethylene glycol monobutyl ether	112-34-5	0.1-<1%
2,6-di-tert-butyl-p-cresol	128-37-0	0.1-<1%

4. First aid measures

Inhalation:	Remove person from danger area. Supply person with fresh air and consult doctor according to symptoms. If the person is unconscious, place in a stable side position and consult a doctor.
Skin:	Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.
Eye:	Remove contact lenses. Wash thoroughly for several minutes using copious water. Seek medical help if necessary.
Ingestion:	Typically no exposure pathway. Rinse the mouth thoroughly with water. Do not induce vomiting. Consult doctor immediately.
Notes to physician:	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media:	CO ₂ , extinction powder, water jet spray, alcohol resistant foam.
Extinguishing media which must not be used for safety reasons:	High volume water jet.
Specific hazards arising from the chemical:	Oxides of carbon, oxides of sulphur, toxic gases, danger of bursting (explosion) when heated, explosive vapor/air mixture.
Fire Fighting:	In case of fire and/or explosion do not breathe fumes. Protective respirator with independent air supply. According to size of fire, full protection, if necessary. Cool container at risk with water. Dispose of contaminated extinction water according to official regulations.
HAZCHEM code	None.

6. Accidental release measures

Personal precautions:	Remove possible causes of ignition - do not smoke. Ensure sufficient supply of air. Avoid inhalation, and contact with eyes or skin. If applicable, caution - risk of slipping.
Containment procedures:	Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous. Prevent surface and ground-water infiltration, as well as ground penetration. If accidental entry into drainage system occurs, inform responsible authorities.
Methods for cleaning up:	If spray or gas escapes, ensure ample fresh air is available. Without adequate ventilation, formation of explosive mixtures may be possible. Active substance: Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

7. Handling and storage

Precautions for safe handling:

Ensure good ventilation. Avoid inhalation of the vapors. Avoid contact with eyes or skin. Keep away from sources of ignition - Do not smoke. Take measures against electrostatic charging, if appropriate. Do not use on hot surfaces. Eating, drinking, smoking, as well as food-storage, is prohibited in work-room. Observe directions on label and instructions for use. Use working methods according to operating instructions.

Storage:

Keep out of access to unauthorised individuals. Not to be stored in gangways or stair wells. Store product closed and only in original packing. Observe special regulations for aerosols! Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung"). Keep protected from direct sunlight and temperatures over 50°C. Store in a well ventilated place. Store cool.

8. Exposure controls/personal protection

Occupational exposure limits:

INGREDIENT DATA

Source	Ingredient	TWA	STEL	Peak
Australia Exposure Standards	butane	1900 mg/m ³ / 800 ppm	Not Available	Not Available
Australia Exposure Standards	propane	Not Available	Not Available	Not Available
Australia Exposure Standards	2,6-Di-tert-butylp-cresol	10 mg/m ³	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	TEEL-1	TEEL-2	TEEL-3
butane	Not Available	Not Available	Not Available
propane	Not Available	Not Available	Not Available
diethylene glycol monobutyl ether	10 ppm	10 ppm	170 ppm
2,6-Di-tert-butylp-cresol	6 mg/m ³	16 mg/m ³	180 mg/m ³

Ingredient	Original IDLH	Revised IDLH
butane	Not Available	Not Available
propane	20,000 [LEL] ppm	2,100 [LEL] ppm
Naphtha (petroleum), hydrotreated light	Not Available	Not Available
Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts	Not Available	Not Available
Sulfonic acids, petroleum, sodium salts	Not Available	Not Available
diethylene glycol monobutyl ether	Not Available	Not Available
2,6-Di-tert-butylp-cresol	Not Available	Not Available

Biological limit values:

Not available.

Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values

Appropriate engineering controls:

are listed here.

Personal protective equipment:

With danger of contact with eyes. Tight fitting protective goggles with side protection (EN 166).

Eye/face protection:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Skin protection:

If OES or MEL is exceeded. Filter A2 P2 (EN 14387), code color brown, white. At high concentrations: Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138). Observe wearing time limitations for respiratory protection equipment.

Respiratory protection:

Chemical resistant protective gloves (EN 374). If applicable, protective nitrile gloves (EN 374). Minimum layer thickness in mm: 0.35. Protective Viton® / fluoroelastomer gloves (EN 374). Minimum layer thickness in mm: 0.4. Permeation time (penetration time) in minutes:

Hand protection:

> 480. Protective hand cream recommended.

9. Physical and chemical properties

Appearance:

Physical state:	Aerosol
Form:	Aerosol
Color:	Light brown, Turbid
Odor:	Mineral oil
Odour threshold:	Not available
PH:	Not available
Melting point/Freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	82°C
Evaporation rate:	Not available
Flammability (solid, gas) :	>250°C
Upper/lower flammability or explosive limits:	0.6% and 10.9%
Vapor pressure:	Not available
Vapor density:	Not available
Density:	0.83 g/cm ³ (Active substance)
Solubility (H₂O) :	Not miscible
Partition coefficient (n-octanol/water) :	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic:	40-45 mm ² /s (20°C, Active substance)
Organic solvents:	Not available
Water:	Not available
VOC (EC) :	Not available
Solids contents:	Not available
Explosive properties:	Product is not explosive. When using: development of explosive vapor/air mixture possible.
Oxidising properties:	No

10. Stability and reactivity

Reactivity:	The product has not been tested.
Chemical stability:	Stable under normal temperatures and pressures.

Possibility of hazardous reactions:	No dangerous reactions are known.
Conditions to avoid:	Incompatible materials. Heating, open flame, ignition sources. Pressure increase will result in danger of bursting.
Incompatible materials:	Avoid contact with strong oxidizing agents.
Hazardous decomposition products:	Oxides of carbon, oxides of sulphur, toxic gases, danger of bursting (explosion) when heated, explosive vapor/air mixture.

11. Toxicological information

Toxicological data:

Acute toxicity:

Naphtha (petroleum), hydrotreated light(CAS#64742-49-0)

LD50(Oral, Rat): >5000mg/kg

LD50(Dermal, Rabbit): >2800 mg/kg

LC50(Inhalation, Rat): >23,3 mg/l/4h

Acute toxicity:

2,6-di-tert-butyl-p-cresol(CAS#128-37-0)

LD50(Oral, Rat): >5000mg/kg

LD50(Dermal, Rabbit): >5000mg/kg

LC50(Inhalation, Rat): Not available.

Acute toxicity:

butane (CAS#106-97-8)

LD50(Oral, Rat): Not available.

LD50(Dermal, Rabbit): Not available.

LC50(Inhalation, Rat): 658 mg/l/4h

Skin corrosion/Irritation: No data available.

Serious eye damage/irritation: No data available.

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

STOT- single exposure: No data available.

STOT-repeated exposure: No data available.

Aspiration hazard: No data available.

Other information This product has no known adverse effect on human health.

12. Ecological information

Toxicity:

2,6-di-tert-butyl-p-cresol(CAS#128-37-0)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	>=0.57 mg/l	96h	Fish	OECD 203	N/A	N/A
EC50	0.61 mg/l	48h	Daphnia	OECD 202	N/A	N/A
EC50	>0.42 mg/l	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: Naphtha (petroleum), hydrotreated light (CAS#64742-49-0): Completely biodegradable.

2,6-di-tert-butyl-p-cresol(CAS#128-37-0): Not readily biodegradable.

Bioaccumulative potential: 2,6-di-tert-butyl-p-cresol(CAS#128-37-0): Log Pow =5.1

Propane(CAS#74-98-6): Log Pow =2.28

butane (CAS#106-97-8): Log Pow =2.98

Mobility in soil:

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 methods:

Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

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.

14. Transport information

ADG

UN number	UN 1950
Proper shipping name	AEROSOLS
Hazard class	2.1
Packing group	-
Labels required	2.1
Special precautions	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	UN 1950
Proper shipping name	AEROSOLS
Hazard class	2.1
Packing group	-
Special precautions	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN 1950
Proper shipping name	AEROSOLS
Hazard class	2.1
Packing group	-
Environmental hazards	
Marine pollutant	No
Special precautions	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not regulated

15. Regulatory information

National regulations

Safety, health and environmental regulations / legislation specific for the substance or mixture

butane(106-97-8) is found on the following regulatory lists	"Australia Hazardous Substances Information System Consolidated Lists"	-
propane(74-98-6) is found on the following regulatory lists	"Australia Hazardous Substances Information System Consolidated Lists"	-

Naphtha (petroleum), hydrotreated light (64742-49-0) is found on the following regulatory lists	"Australia Hazardous Substances Information System Consolidated Lists" -
Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts (93820-57-6) is found on the following regulatory lists	"Not Applicable"
Sulfonic acids, petroleum, sodium salts(68608-26-4) is found on the following regulatory lists	"Not Applicable"
diethylene glycol monobutyl ether (112-34-5) is found on the following regulatory lists	"Australia Hazardous Substances Information System Consolidated Lists" -
2,6-Di-tert-butylp-cresol(128-37-0) is found on the following regulatory lists	"Australia Hazardous Substances Information System Consolidated Lists" -

Inventory status:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic /Non-Domestic Substances List (DSL)/(NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial/ Notified Chemical Substances (EINECS) / (ELINCS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	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).

16. Other information

Indication of changes:	Version 1.0
Training instructions:	Not applicable.
Further information:	This information is based upon the present state of our knowledge. This MSDS has been compiled and is solely intended for this product.
Notice to reader:	Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.