

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product Identifier

Material name : Penmax Nanotech

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : Penetrating Fluid

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Central Solutions (GB) Ltd
 Sol-X House
 Windmill Lane
 Norton
 Doncaster
 DN6 9AT

Tel. : +44 (0) 1302 708895

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Email (for SDSs) : info@solxsolutions.com

1.4 Emergency tel. no.: +44 (0) 1302 708895 (Office hours)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to 1272/2008/EC: Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation:

- Extremely Flammable Aerosol Category 1
- Skin Irritant 2
- Eye Irritant 2
- STOT SE Category 3
- Aquatic Chronic 2

2.2 Label elements

Labelling according to EC Directives: 1272/2008/EC:

Signal word: Danger



Pictogram(s):

Contains: Distillates (Petroleum) Hydrotreated Light, Propan-2-ol, Hydrocarbons, C6, isoalkanes, <5% n-Hexane

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|---------------|------|--|
| H-Statements: | H222 | Extremely flammable aerosol. |
| | H229 | Pressurised container: May burst if heated. |
| | H315 | Causes skin irritation. |
| | H319 | Causes serious eye irritation. |
| | H336 | May cause drowsiness or dizziness. |
| | H411 | Toxic to aquatic life with long lasting effects. |

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2.2 Label elements (continued)

P-Statements:	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P211	Do not spray on an open flame or other ignition source.
	P251	Do not pierce or burn, even after use.
	P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C.
	P261	Avoid breathing vapour/spray.
	P280	Wear protective gloves/eye/face protection.
	P271	Use only outdoors or in a well-ventilated area.
	P302+P352	IF ON SKIN: Wash with soap and water.
	P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
	P273	Avoid release to the environment.
Supplementary P-Statements:	P332+P313	If skin irritation occurs: Get medical advice/attention.
	P362	Take off contaminated clothing and wash before re-use.
	P501	Dispose of in accordance with local/national regulations.

2.3 Other hazards In use, may form flammable / explosive vapour-air mixture.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures:

Hazardous components

Chemical Name	CAS No./ EC No./ Reg. No	Classification (1272/2008/EC)	Content
DISTILLATES (PETROLEUM) HYDROTREATED LIGHT (ODOURLESS KEROSENE)	64742-47-8 265-149-8 01-2119484819-18	Skin Irrit. 2 H315, STOT SE3 H336, Asp. Tox. 1 H304, Aquatic Chronic 2 H411	25-35%
PROPAN-2-OL	67-63-0 200-661-7 01-2119457558-25-xxxx	Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336	10-20%
HYDROCARBONS, C6, ISOALKANES, <5% n-HEXANE	64742-49-0 931-254-9 01-2119484651-34-xxxx	Flam. Liq. 2 H225, Skin Irrit. 2 H315, STOT SE3 H336, Asp. Tox. 1 H304, Aquatic Chronic 2 H411	10-20%
LIQUEFIED PETROLEUM GAS (contains <0.1% 1,3-butadiene)	68476-85-7 270-704-2 -	Flam.Gas 1; H220 Gas under pressure; H280	25-35%

See Section 16 for the full text of the H-statements noted above.

4. FIRST AID MEASURES**4.1 Description of first aid measures**

General advice: Remove casualty from exposure ensuring one's own safety whilst doing so. Take off any contaminated clothing and shoes/boots immediately. Never give anything by mouth to an unconscious person.

Skin contact: Wash with soap and water. Seek medical advice if irritation develops.

Eye contact: Rinse with water for 10 minutes and seek medical advice if irritation persists.

Ingestion: Rinse mouth with water and give water to drink. Do not induce vomiting. Seek medical advice.

Inhalation: Remove to fresh air. Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed: May cause irritation to skin and eyes with prolonged contact.

4.3 Indication of any immediate medical attention and special treatment needed: See skin and eye contact information above.

5. FIRE-FIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media: Carbon dioxide; dry chemical powder; alcohol or polymer foam.

Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting: Irritating/toxic fumes may be released at elevated temperatures.

5.3 Advice for fire-fighters:

Special protective equipment: Wear self-contained breathing apparatus. Use personal protective equipment.

Further information: Standard procedure for chemical fires. Use water spray to cool containers.
Do not allow fire run-off to enter drains.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Evacuate personnel to safe areas. Mark out the contaminated area with signs and prevent access to unauthorised personnel.

Use personal protective equipment to deal with spillage.

6.2 Environmental precautions

Contain the spillage using sufficient appropriate absorbent material. Do not discharge into drains or rivers, but if contamination to waterways has occurred, inform local authorities.

6.3 Methods and materials for containment and cleaning up

Wipe up liquid spillage with absorbent material such as sand, earth, or vermiculite, and place in a labelled container for disposal in accordance with local/national regulations.

6.4 References to other sections: See sections 8 and 13 for personal protection and disposal information.

7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

Do not breathe spray mist. Avoid contact with skin and eyes. Handle with care.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, well ventilated area, below 50°C. Protect from frost, heat and sunlight. Keep away from food, drink and animal feed.

7.3 Specific end use(s): No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Control parameters**

Chemical name	8hr TWA	15min STEL	Reference
Propan-2-ol	999 mg/m ₃ /400 ppm	1250 mg/m ₃ /500 ppm	EH40/2005
Hydrocarbons, C6, isoalkanes, <5% n-hexane	1400 mg/m ₃ /362 ppm	-	Manufacturer
Liquefied petroleum gas	1750 mg/m ₃ /1000ppm	2810 mg/m ₃ /1250 ppm	EH40/2005

DNEL (workers)	Hydrocarbons, C6, isoalkanes, <5% n-hexane
Chronic systemic effects (dermal)	13964 mg/kg bw/day
Chronic systemic effects (inhalation)	5306 mg/m ₃

DNEL (consumers)	Hydrocarbons, C6, isoalkanes, <5% n-hexane
Chronic systemic effects (dermal)	1377 mg/kg bw/day
Chronic local effects (inhalation)	1137 mg/m ₃

8.2 Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Personal protective equipment

Respiratory protection: Unlikely to be necessary in normal circumstances; if vapour levels are high, wear a respirator conforming to EN 140 with type A filter or better.

Hand protection: Wear chemically resistant gloves such as butyl rubber approved to standard EN 374; material thickness 0.5mm; break through time \geq 480 min. Gloves must be replaced after 8 hours of wear. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Check with glove manufacturer for specific advice.

Eye protection: Chemical splash goggles if eye contact is reasonably probable. The selected goggles or glasses must satisfy the European standard EN 166.

Skin and body protection: Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. The selected protective clothing has to satisfy the standard EN 13034, which describes clothing offering limited 8 hour protection against splashes. Use PPE that is chemically resistant to the product and prevents skin contact.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practices. Do not eat or drink whilst using the product. Wash hands before breaks and at the end of the work day. Wash contaminated clothing before re-use.

Environmental exposure controls: Do not discharge into drains or rivers.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

State and colour	Aerosol emitting colourless spray.
Odour	Paraffinic/Alcoholic
Odour Threshold	No data available
Flammability	Extremely flammable
Flash point	<0°C
Lower explosion limit	0.8%
Upper explosion limit	12.0%
Explosive properties	Not explosive
Thermal decomposition	No data available
Auto-ignition temperature	>230°C
Oxidising properties	Non-oxidising
Solubility in water	Partially soluble
Solubility in other solvents	Soluble in most organic solvents.
pH	Not applicable
Melting point/range	No data available
Boiling point/range	No data available
Relative density	No data available
Vapour pressure	No data available
Vapour density	No data available
Partition coefficient: n-octanol/water	No data available
Viscosity (kinematic)	No data available
Evaporation rate	No data available

9.2 Other information

VOC Content	100%
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10. STABILITY AND REACTIVITY

10.1 Reactivity	Generally non-reactive.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	None if stored and used as directed.
10.4 Conditions to avoid	None known.
10.5 Incompatible materials	None known.
10.6 Hazardous decomposition products	Oxides of carbon.

11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Acute toxicity**

Chemical name	Oral (LD50)	Inhalation (LC50)	Dermal (LD50)
Propan-2-ol	>2000 mg/kg (Rat)	No data available	>2000 mg/kg (Rabbit)
Hydrocarbons, C6, isoalkanes, <5% n-hexane	>5840 mg/kg (Rat)	>25.2 mg/l (Rat) 4h	>2920 mg/kg (Rabbit)
Liquefied petroleum gas	Not applicable	>20mg/l (Rat) 4h	Not applicable

Skin corrosion/irritation:

Propan-2-ol: Not classed as a skin irritant.
C6 Hydrocarbon: Moderately irritating with prolonged exposure.

Serious eye damage/eye irritation:

Propan-2-ol: Causes eye irritation.
C6 Hydrocarbon: May cause mild, transient discomfort.

11.1 Information on toxicological effects (continued)

Respiratory or skin sensitisation:	Propan-2-ol: Not classed as a respiratory or skin sensitizer. C6 Hydrocarbon: Not expected to be a sensitiser.
Repeated dose toxicity:	Propan-2-ol: Tests on rats over prolonged periods have shown both weight gains and losses, increased weight of the liver and some liver damage. C6 Hydrocarbon: Not expected to be a hazard.
Carcinogenicity:	Propan-2-ol: Not carcinogenic. C6 Hydrocarbon: Not carcinogenic.
Mutagenicity:	Propan-2-ol: Not mutagenic. C6 Hydrocarbon: Not mutagenic.
Toxicity for reproduction:	Propan-2-ol: Not toxic for reproduction. C6 Hydrocarbon: Not expected to be a hazard.
Specific target organ toxicity (STOT):	Propan-2-ol: vapour in high concentrations can cause irritation of the respiratory system and eyes; drowsiness and dizziness. Ingestion can cause nausea and vomiting at higher doses. C6 Hydrocarbon: May cause drowsiness or dizziness.

Further information

The product as a whole may cause irritation of skin, eyes, nose and upper respiratory tract if exposed to high levels of spray mist.

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Chemical name	Species	Test	Value
Propan-2-ol	Daphnia	EC50 48h	>100 mg/l
	Golden ide	LC50 48h	>100 mg/l
	Algae	EC50 72h	>100 mg/l
Hydrocarbons, C6, isoalkanes, <5% n-hexane	Daphnia	EC50 48h	3 mg/l
	Rainbow trout	LL50 96h	>13.4 mg/l
	Algae	EC50 72h	29 mg/l

Physical properties indicate that petroleum gases will rapidly volatilise from the aquatic environment and that acute and chronic effects would not be observed in practice.

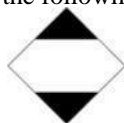
12.2 Persistence and degradability	Propan-2-ol: Readily biodegradable. C6 Hydrocarbon: Expected to be readily biodegradable.
12.3 Bioaccumulative potential	Propan-2-ol: Not expected to bioaccumulate. C6 Hydrocarbon: Not determined.
12.4 Mobility in soil	Propan-2-ol: soluble in water and migrate through soil. C6 Hydrocarbon: Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater.
12.5 Results of PBT and vPvB assessment	Propan-2-ol, C6 Hydrocarbon: Contain no PBT or vPvB substances.
12.6 Other adverse effects	None expected.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**


Disposal operations: Dispose of in accordance with local and national regulations.
Contact licensed waste disposal company. Most aerosols can be recycled.
Do not pierce or burn or use a cutting torch on the empty aerosol container.

14. TRANSPORT INFORMATION

General Information: The UN number for all aerosols is 1950. Aerosols packed in fibreboard cartons up to 30 kg gross weight, or shrink/stretch wrapped onto trays up to 20 kg gross weight may be transported as Limited Quantities, and should display the following symbol on the pack:



The following information relates to all other aerosols not transported as Limited Quantities:

14.1 UN number	ADR/RID/ADN; IMDG; ICAO	1950
14.2 UN proper shipping name	AEROSOLS	
14.3 Transport hazard class(es)	ADR/RID/ADN Class	2, 5F
	ADR/RID/ADN Class	Class 2, Gases
	ADR Label No.	2.1
	IMDG Class	2
	ICAO Class/Division	2
	ICAO Subsidiary risk	2.1
	Transport labels	
14.4 Packing Group	ADR/RID/ADN; IMDG; ICAO	Not applicable for aerosols
14.5 Environment hazards	Marine Pollutant	Not applicable for aerosols.
14.6 Special precautions for user	EMS	F-D, S-U
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code		Not applicable for aerosols.

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****UK Regulatory References**

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2001 No.2677) with amendments.

EU Directives

Regulations (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Statutory Instruments

The Chemicals (Hazard information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Guidance Notes

Health and Safety Executive Workplace Exposure Limits EH40.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been performed on this product.

16. OTHER INFORMATION

This safety data sheet is prepared in accordance with Commission Regulation (EU) No.453/2010.

Full text of H-statements referred to under sections 2 and 3

- H220 Extremely flammable gas.
- H222 Extremely flammable aerosol.
- H225 Highly flammable liquid and vapour.
- H229 Pressurised container: May burst if heated.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

CAS: Chemical Abstract Service (division of the American Chemical Society). {Section 3}.
STOT: Single Target Organ Toxicity (Section 2; 11).
SE: Single exposure (Section 2)
TWA: Time-weighted average. (Section 8).
STEL: Short-term exposure limit. (Section 8).
PBT: Persistent, Bioaccumulative, Toxic. (Section 12).
vPvB: very Persistent and very Bioaccumulative. (Section 12).

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

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