Material Safety Data Sheet
According to Regulation (EC) No 1907/2006

Printing date 27.05.2008
Reviewed on 27.05.2008

1 Identification of substance:

- **Product details**:

- **Trade name**: ***NanoProtech Anticorrosion 210ml***
- **Application of the substance / the preparation**
Anti moisture protection for metallic and electrical material.

· **Manufacturer/Supplier:**
Innovative Technology, LLC
197101 St. Petersburg, 22-A Kamennoostrovsky pr., pom. 3-H
- **Technical specifications** № 2389-001-82216327-2008
· **Informing department**: Phone: +7 812-716-46-17

2 Composition/Data on components:

· **Chemical characterization**
· **Description:**
Preparation made of highly refined mineral oil, anticorrosive additives, antioxidants and dearomatized paraffinic and naphthenic hydrocarbons. Aerosol: Propane/Butane.

Dangerous components:		
CAS: 74-98-6 EINECS: 200-827-9	Propane liquefied  F+, R 12	10-25%
CAS: 64742-49-0 EINECS: 265-151-9	Naphtha (petroleum), hydrotreated light  Xn,  Xi,  F,  N; R 11-38-51/53-65-67	<20%
CAS: 106-97-8 EINECS: 203-448-7	Butane, pure  F+, R 12	10-25%

· **Additional information** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· **Hazard designation:**

(Contd. on page 2)

(Contd. from page 1)


F+ Extremely flammable

· **Information pertaining to particular dangers for man and environment**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
R 12 Extremely flammable
R 51/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 67 Vapours may cause drowsiness and dizziness.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.
Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.
Keep out of the reach of children
· **Classification system**
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

4 First aid measures

· **After inhalation** Supply fresh air; consult doctor in case of symptoms.
· **After skin contact**
Wash intensively with water and soap. Use protective skin ointment.
If skin irritation continues, consult a doctor.
· **After eye contact**
Rinse opened eye for several minutes under running water. Then consult doctor.
· **After swallowing** Instantly call for doctor.

5 Fire fighting measures

· **Suitable extinguishing agents**
CO2, extinguishing powder or sand. Fight larger fires with alcohol-resistant foam.
· **For safety reasons unsuitable extinguishing agents** Water.
· **Special hazards caused by the material, its products of combustion or resulting gases:**
Can form explosive gas-air mixtures.
· **Protective equipment**: Wear breathing protection if necessary.
· **Additional information**
Cool endangered containers with water spray jet.

(Contd. on page 3)

(Contd. from page 2)

Remove fill mass from incendiary zone, if possible.

6 Accidental release measures

· **Person-related safety precautions:**
Keep away from ignition sources
Wear protective equipment. Keep unprotected persons away.

· **Measures for environmental protection**:
Inform respective authorities in case product reaches water or sewage system.
Do not allow to enter drainage system, surface or ground water.

· **Measures for cleaning/collecting**:
Absorb with liquid-binding material (sand, diatomite, universal binders) and disposal in suitable containers.
Ensure adequate ventilation.

7 Handling and storage

· **Handling**
· **Information for safe handling:**
Keep away from heat and direct sunlight.
Use only in well ventilated areas.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Use the material only at places where open light, fire and other ignition sources are kept away.
· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
· **Storage**
· **Requirements to be met by storerooms and containers**: Store in cool location.
Observe official regulations on storing packagings with pressurized containers.
· **Information about storage in one common storage facility**: Not required.
· **Further information about storage conditions**:
Store in a cool place. Heat will increase pressure and may lead to the container exploding.
Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

· **Components with limit values that require monitoring at the workplace**:
74-98-6 propane liquefied
OES Asphyxiant
106-97-8 butane, pure

(Contd. on page 4)

(Contd. from page 3)

OES Short-term value: 1810 mg/m³, 750 ppm
Long-term value: 1450 mg/m³, 600 ppm

· **Additional information**: The lists that were valid during the compilation were used as basis.
· **Personal protective equipment**
· **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.
Take off immediately all contaminated clothing
Wash hands during breaks and at the end of the work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
· **Breathing equipment**: Use breathing protection in case of insufficient ventilation.
· **Protection of hands**:
Oil resistant gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **As protection from splashes gloves made of the following materials are suitable**:
Nitrile rubber, NBR
· **Eye protection**: Safety glasses
· **Body protection**: Protective work clothing.

9 Physical and chemical properties:

· **General Information**
Form: aerosol
Colour: Brownish.
Odour: Solvent-like
· **Change in condition**

(Contd. on page 5)

(Contd. from page 4)

Melting point/Melting range: Not determined
Boiling point/Boiling range: Not applicable, as aerosol

· **Flash point**: Not applicable, as aerosol
· **Ignition temperature**: >250°C
· **Self-inflammability**: Product is not selfigniting.
· **Danger of explosion**: Product is not explosive. However, formation of explosive air/ steam mixtures is possible.

· **Critical values for explosion**:
Lower: 0.6 Vol %
Upper: ca 10.9 Vol %

· **Density** at 20°C 0.6 g/cm^3.
· **Solubility in / Miscibility with Water**: Not miscible or difficult to mix
· **Additional information.** Can internal pressure (20°C): 3,5 bar
Can internal pressure (50°C): 6,5 bar

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided**:
No decomposition if used according to specifications.
· **Dangerous reactions** Danger of containers bursting because of high vapour pressure
· **Dangerous products of decomposition**:
None in case of intended use and storage in compliance with instructions.

11 Toxicological information

· **Acute toxicity**:
· **Primary irritant effect**:
· *on the skin*: No irritant effect.
· *on the eye*: Solvent splash may have reversible irritant effect.
· **Sensitization**: No sensitizing effect known.
· **Additional toxicological information**:
When inhaling high concentrations narcotic symptoms are possible.

12 Ecological information:

· **Ecotoxical effects**:
· **Remark**: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
· **General notes**:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

(Contd. on page 6)

(Contd. from page 5)

Do not allow product to reach ground water, water bodies or sewage system

13 Disposal considerations

· **Product**:
· **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
The waste code numbers mentioned are recommendations based on the probable use of the product.

European Waste Catalogue	
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10	packaging containing residues of or contaminated by dangerous substances

15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 04	metallic packaging

· **Uncleaned packagings**:
· **Recommendation**: Empty containers are to be introduced to the scrap processing and/or to the reconditioning.
Packing drums which are not duly emptied belong to hazardous waste.

14 Transport information

· **Land transport ADR/RID (cross-border)**

(Contd. on page 7)

(Contd. from page 6)

· ADR/RID-GGVSE Class:	2 5F Gases
· UN-Number:	1950
· Label	**2.1**
· Designation of goods:	1950 AEROSOLS

· Maritime transport IMDG:

· IMDG Class:	2
· UN Number:	1950
· Label	2.1
· EMS number:	F-D,S-U
· Marine pollutant:	No
· Correct technical name:	AEROSOLS

· Air transport ICAO-TI and IATA-DGR:

· ICAO/IATA Class:	2.1
· UN/ID Number:	1950
· Label	2.1
· Correct technical name:	AEROSOLS, flammable

15 Regulatory information

· Designation according to EC guidelines:
The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· Code letter and hazard designation of product:

(Contd. on page 8)

(Contd. from page 7)

F + extremely flammable

· **Risk phrases:**
12 extremely flammable
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**
23 Do not breathe aerosol.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
51 Use only in well-ventilated areas.

· **Special designation of certain preparations:**
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.
Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.
Keep out of the reach of children

· **National regulations**

· **Technical instructions** (air):

Class	Share in %
III	50-100

· **Water hazard class**: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant R-phrases**
11 Highly flammable.
12 Extremely flammable.
38 Irritating to skin.

(Contd. on page 9)

(Contd. from page 8)

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65 Harmful: may cause lung damage if swallowed.
67 Vapours may cause drowsiness and dizziness.

· **Department issuing data specification sheet:**
This Material Safety Data Sheet has been drawn up in cooperation with:
“VNIINeftechim”
St. Petersburg, 40 Zheleznodorozhny pr.,

Material Safety Data Sheet
According to Regulation (EC) No 1907/2006

Printing date 27.05.2008
Reviewed on 27.05.2008

1 Identification of substance:

- **Product details**:

- **Trade name**: ***NanoProtech Electric 210 ml***
- **Application of the substance / the preparation**
Anti moisture for the protection of metallic, electrical and electronical parts

· **Manufacturer/Supplier:**
Innovative Technology, LLC
197101 St. Petersburg, 22-A Kamennoostrovsky pr., pom. 3-H
- **Technical specifications** № 2389-001-82216327-2008
· **Informing department**: Phone: +7 812-716-46-17

2 Composition/Data on components:

· **Chemical characterization**
· **Description:**
Preparation made of highly refined mineral oil, anticorrosive additives, antioxidants and dearomatized paraffinic and naphthenic hydrocarbons. Aerosol: Propane/Butane.

Dangerous components:		
CAS: 74-98-6 EINECS: 200-827-9	Propane liquefied  F+, R 12	10-25%
CAS: 64742-49-0 EINECS: 265-151-9	Naphtha (petroleum), hydrotreated light  Xn,  Xi,  F,  N; R 11-38-51/53-65-67	<20%
CAS: 106-97-8 EINECS: 203-448-7	Butane, pure  F+, R 12	10-25%

· **Additional information** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· **Hazard designation:**

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· **Information pertaining to particular dangers for man and environment**
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Keep out of the reach of children
· **Classification system**
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

4 First aid measures

· **After inhalation** Supply fresh air; consult doctor in case of symptoms.
· **After skin contact**
Wash intensively with water and soap. Use protective skin ointment.
If skin irritation continues, consult a doctor.
· **After eye contact**
Rinse opened eye for several minutes under running water. Then consult doctor.
· **After swallowing** Instantly call for doctor.

5 Fire fighting measures

· **Suitable extinguishing agents**
CO2, extinguishing powder or sand. Fight larger fires with alcohol-resistant foam.
· **For safety reasons unsuitable extinguishing agents** Water.
· **Special hazards caused by the material, its products of combustion or resulting gases:**
Can form explosive gas-air mixtures.
· **Protective equipment**: Wear breathing protection if necessary.
· **Additional information**
Cool endangered containers with water spray jet.

(Contd. on page 3)

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Remove fill mass from incendiary zone, if possible.

6 Accidental release measures

· **Person-related safety precautions:**
Keep away from ignition sources
Wear protective equipment. Keep unprotected persons away.

· **Measures for environmental protection**:
Inform respective authorities in case product reaches water or sewage system.
Do not allow to enter drainage system, surface or ground water.

· **Measures for cleaning/collecting**:
Absorb with liquid-binding material (sand, diatomite, universal binders) and disposal in suitable containers.
Ensure adequate ventilation.

7 Handling and storage

· **Handling**
· **Information for safe handling:**
Keep away from heat and direct sunlight.
Use only in well ventilated areas.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Use the material only at places where open light, fire and other ignition sources are kept away.
· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
· **Storage**
· **Requirements to be met by storerooms and containers**: Store in cool location.
Observe official regulations on storing packagings with pressurized containers.
· **Information about storage in one common storage facility**: Not required.
· **Further information about storage conditions**:
Store in a cool place. Heat will increase pressure and may lead to the container exploding.
Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

· **Components with limit values that require monitoring at the workplace**:
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OES Short-term value: 1810 mg/m³, 750 ppm
Long-term value: 1450 mg/m³, 600 ppm

· **Additional information**: The lists that were valid during the compilation were used as basis.
· **Personal protective equipment**
· **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.
Take off immediately all contaminated clothing
Wash hands during breaks and at the end of the work.
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Avoid contact with the skin.
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· **Protection of hands**:
Oil resistant gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
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· **Eye protection**: Safety glasses
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9 Physical and chemical properties:

· **General Information**
Form: aerosol
Colour: Brownish.
Odour: Solvent-like
· **Change in condition**

(Contd. on page 5)

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Melting point/Melting range: Not determined
Boiling point/Boiling range: Not applicable, as aerosol

· **Flash point**: Not applicable, as aerosol
· **Ignition temperature**: >250°C
· **Self-inflammability**: Product is not selfigniting.
· **Danger of explosion**: Product is not explosive. However, formation of explosive air/ steam mixtures is possible.

· **Critical values for explosion**:
Lower: 0.6 Vol %
Upper: ca 10.9 Vol %

· **Density** at 20°C 0.6 g/cm^3.
· **Solubility in / Miscibility with Water**: Not miscible or difficult to mix
· **Additional information.** Can internal pressure (20°C): 3,5 bar
Can internal pressure (50°C): 6,5 bar

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided**:
No decomposition if used according to specifications.
· **Dangerous reactions** Danger of containers bursting because of high vapour pressure
· **Dangerous products of decomposition**:
None in case of intended use and storage in compliance with instructions.

11 Toxicological information

· **Acute toxicity**:
· **Primary irritant effect**:
· *on the skin*: No irritant effect.
· *on the eye*: Solvent splash may have reversible irritant effect.
· **Sensitization**: No sensitizing effect known.
· **Additional toxicological information**:
When inhaling high concentrations narcotic symptoms are possible.

12 Ecological information:

· **Ecotoxical effects**:
· **Remark**: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
· **General notes**:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

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Do not allow product to reach ground water, water bodies or sewage system

13 Disposal considerations

· **Product**:
· **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
The waste code numbers mentioned are recommendations based on the probable use of the product.

European Waste Catalogue	
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15 01 04	metallic packaging

· **Uncleaned packagings**:
· **Recommendation**: Empty containers are to be introduced to the scrap processing and/or to the reconditioning.
Packing drums which are not duly emptied belong to hazardous waste.

14 Transport information

· **Land transport ADR/RID (cross-border)**

(Contd. on page 7)

(Contd. from page 6)

· ADR/RID-GGVSE Class:	2 5F Gases
· UN-Number:	1950
· Label	**2.1**
· Designation of goods:	1950 AEROSOLS

· Maritime transport IMDG:

· IMDG Class:	2
· UN Number:	1950
· Label	2.1
· EMS number:	F-D,S-U
· Marine pollutant:	No
· Correct technical name:	AEROSOLS

· Air transport ICAO-TI and IATA-DGR:

· ICAO/IATA Class:	2.1
· UN/ID Number:	1950
· Label	2.1
· Correct technical name:	AEROSOLS, flammable

15 Regulatory information

· Designation according to EC guidelines:
The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· Code letter and hazard designation of product:

(Contd. on page 8)

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F + extremely flammable

· **Risk phrases:**
12 extremely flammable
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**
23 Do not breathe aerosol.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
51 Use only in well-ventilated areas.

· **Special designation of certain preparations:**
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.
Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.
Keep out of the reach of children

· **National regulations**

· **Technical instructions** (air):

Class	Share in %
III	50-100

· **Water hazard class**: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant R-phrases**
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