

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

SDS #	XPEL-043-EU
Product Name	XPEL Pro Series Graphene
<u>Other means of identification</u>	
Pure substance/mixture	Mixture Contains 3-(Triethoxysilyl) propylamine

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

Recommended Use	For industrial use
Uses Advised Against	No information available

1.3. Details of the supplier of the safety data sheet

Supplier

XPEL, Inc.
3251 I-35
San Antonio, TX, 78219
USA
T +1 210-678-3700

For further information, please contact

Contact Point	XPEL, Inc. PHONE: 1-210-678-3700
Email Address	support@xpel.com

1.4. Emergency telephone number

Emergency Telephone (24 hr)	INFOTRAC 1-352-323-3500 (International) 1-800-535-5053 (North America)
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Emergency Telephone Number - §45 - (EC) 1272/2008

Europe	112
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SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flammable liquids	Category 3 - (H226)
Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 1 Sub-category B - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitisation	Category 1 - (H317)

2.2. Label elements

Contains 3-(Triethoxysilyl) propylamine



Signal word

Danger

Hazard statements

- H302 - Harmful if swallowed
- H314 - Causes severe skin burns and eye damage
- H317 - May cause an allergic skin reaction
- H226 - Flammable liquid and vapour

Precautionary Statements - EU (§28, 1272/2008)

- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- P233 - Keep container tightly closed
- P240 - Ground/bond container and receiving equipment
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P270 - Do not eat, drink or smoke when using this product
- P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
- P242 - Use only non-sparking tools
- P243 - Take precautionary measures against static discharge
- P272 - Contaminated work clothing should not be allowed out of the workplace
- P264 - Wash face, hands and any exposed skin thoroughly after handling
- P260 - Do not breathe dust/fume/gas/mist/vapours/spray
- P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]
- P363 - Wash contaminated clothing before reuse
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P310 - Immediately call a POISON CENTER or doctor
- P330 - Rinse mouth
- P331 - Do NOT induce vomiting
- P370 + P378 - In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant foam to extinguish
- P403 + P235 - Store in a well-ventilated place. Keep cool
- P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P405 - Store locked up
- P501 - Dispose of contents/ container to an approved waste disposal plant

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment

Additional information

This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

No information available

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 3: Composition/information on ingredients

3.1. Other hazards

Not applicable

3.2. Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Cyclosilazanes, dimethyl, methyl hydrogen, polymers with dimethyl, methyl hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanamine 475645-84-2	30-50	No data available	-	Acute Tox. 4 (H302) (Self-Class) Skin Corr. 1A (H314) (Self-Class) Eye Dam. 1 (H318) (Self-Class)	-	-	-
Hydrocarbons, C10, aromatics, <1% naphthalene 1189173-42-9	5-9	No data available	-	No data available	-	-	-
Heptamethyltrisiloxane 67674-67-3	5-9	No data available	-	Eye Dam. 1 (H318) (Self-Class)	-	-	-
3-(Triethoxysilyl) propylamine 919-30-2	3-5	No data available	(612-108-00-0) 213-048-4	Acute Tox. 4 (H302) Skin Corr. 1B (H314) Skin Sens. 1A (H317) (Self-Class)	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	ORAL LD50 MG/KG	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
3-(Triethoxysilyl) propylamine 919-30-2	1780	4290	Inhalation LC50 Rat >16 ppm 6 h (females; no deaths occurred, vapor, Source: ECHA_API); Inhalation LC50 Rat >5 ppm 6 h (males; no deaths occurred, vapor, Source: ECHA_API)	>16 >5	Inhalation LC50 Rat >16 ppm 6 h (females; no deaths occurred, vapor, Source: ECHA_API); Inhalation LC50 Rat >5 ppm 6 h (males; no deaths occurred, vapor, Source: ECHA_API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention. May cause an allergic skin reaction
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Burning sensation. Itching. Rashes. Hives
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitisation in susceptible persons. Treat symptomatically
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SECTION 5: Firefighting measures

5.1. Indication of any immediate medical attention and special treatment needed

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. Product is or contains a sensitiser. May cause sensitisation by skin contact.
Hazardous combustion products	Smoke, fumes or vapors, and oxides of carbon

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Attention! Corrosive material
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8
For emergency responders	Use personal protection recommended in Section 8

6.2. Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Should not be released into the environment. Do not allow to enter into soil/subsoil
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6.3. Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials
Storage class (TRGS 510)	LGK 3

7.3 Conditions for safe storage, including any incompatibilities

Specific end use(s)	For industrial use
Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure Limits

Chemical name	CYPRUS	Czech Republic	Denmark	Estonia	Finland
3-(Triethoxysilyl) propylamine 919-30-2	-	-	-	-	TWA: 3 ppm TWA: 28 mg/m ³ STEL: 6 ppm STEL: 55 mg/m ³

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Derived No Effect Level (DNEL) - Workers

No information available

Derived No Effect Level (DNEL) - General Public

No information available

Predicted No Effect Concentration (PNEC)

No information available

8.2 Exposure controls

Engineering controls

No information available

Personal Protective Equipment

Eye/face protection

Tight sealing safety goggles. Face protection shield

Hand protection

Wear suitable gloves. Impervious gloves

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use

Environmental exposure controls

No information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Black liquid
Colour	Black
Odour	Characteristic
Odour Threshold	No information available

Property	VALUES
Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flammability (Solid, Gas)	No data available
Flammability Limit in Air	
Upper flammability or explosive limits	5.4%
Lower flammability or explosive limits	0.6%

Property	VALUES
Flash point	49 °C
Autoignition temperature	No data available
Decomposition temperature pH	No data available
pH (as aqueous solution)	No data available
Kinematic viscosity	No data available
Dynamic Viscosity	No data available
Water solubility	No data available
Solubility(ies)	No data available
Partition Coefficient	No data available
Vapour Pressure	No data available
Relative Density	0.94 g/ml
Bulk Density	No data available
Liquid Density	No data available
Vapour Density	No data available
Particle characteristics	
Particle Size	No information available
Particle Size Distribution	No information available

9.2. Other information

- 9.2.1. Information with regards to physical hazard classes** Not applicable
- 9.2.2. Other safety characteristics** No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available

10.2. Chemical stability

Stability Stable under normal conditions
 Explosion Data
 Sensitivity to mechanical impact None
 Sensitivity to static discharge Yes

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. Exposure to air or moisture over prolonged periods

10.5. Incompatible materials

Incompatible materials Acids. Bases. Oxidising agent

SECTION 12: Ecological information

11.2. Information on other hazards

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	ALGAE/AQUATIC PLANTS	Fish	Toxicity to microorganisms	Crustacea
3-(Triethoxysilyl) propylamine	-	LC50: >934mg/L (96h, Danio rerio)	-	-

12.2. Persistence and degradability

Persistence/Degradability No information available

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product

12.4. Mobility in soil

Mobility in Soil No information available

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB

Chemical name	PBT AND VPVB ASSESSMENT
Hydrocarbons, C10, aromatics, <1% naphthalene	The substance is not PBT / vPvB
3-(Triethoxysilyl) propylamine	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available

12.7. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers

SECTION 14: Transport information

IMDG

14.1 UN number or ID number UN1993

14.2 Proper Shipping Name Flammable liquid, n.o.s. (Cyclosilazanes)

14.3 Transport hazard class(es) 3

14.4 Packing Group III

RID

14.1 UN/ID No UN1993

14.2 Proper Shipping Name Flammable liquid, n.o.s. (Cyclosilazanes)

14.3 Transport hazard class(es) 3

14.4 Packing Group III

RID

14.1 UN/ID No UN1993

14.2 Proper Shipping Name Flammable liquid, n.o.s. (Cyclosilazanes)

14.3 Transport hazard class(es) 3

14.4 Packing Group III

ADR

14.1 UN number or ID number UN1993

14.2 Proper Shipping Name Flammable liquid, n.o.s. (Cyclosilazanes)

14.3 Transport hazard class(es) 3

14.4 Packing Group III

IATA

14.1 UN number or ID number UN1993

14.2 Proper Shipping Name Flammable liquid, n.o.s. (Cyclosilazanes)

14.3 Transport hazard class(es) 3

14.4 Packing group III

SECTION 15: Regulatory information

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

European Union Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	RESTRICTED SUBSTANCE PER REACH ANNEX XVII	Substance subject to authorisation per REACH Annex XIV
3-(Triethoxysilyl) propylamine - 919-30-2	75.	-

Persistent Organic Pollutants Not applicable

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

P5a - FLAMMABLE LIQUIDS

P5b - FLAMMABLE LIQUIDS

P5c - FLAMMABLE LIQUIDS

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/ELINCS	PICCS	ENCS	IECSC	AIIC	KECL
Cyclosilazanes, dimethyl, methyl hydrogen, polymers with dimethyl, methyl hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanamine 475645-84-2 (30-50)	X	X	-	-	-	-	-	-
Heptamethyltrisiloxane 67674-67-3 (5-9)	X	X	-	X	-	X	X	-
3-(Triethoxysilyl) propylamine 919-30-2 (3-5)	X	X	X	X	X	X	X	X

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

Legend

SVHC: Substances of Very High Concern for Authorisation

TWA	TWA (time-weighted average)
Ceiling	Maximum limit value
+	Sensitisers
STEL	STEL (Short Term Exposure Limit)
*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	On basis of test data
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	On basis of test data
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGl(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text