

Revision date: Initial version

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Page: 1/13

Trade name: PLASTIC.

SECTION 1: Identification

Product identifier used on the label:

Product Name: **PLASTIC.**

Other means of identification:

Product Code Number: Not Applicable

Recommended use of the chemical and restrictions on use:

Recommended use: Ceramic Coating for Automotive, Marine, Aero &
Industrial use

Recommended restrictions: Uses other than as recommended above

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Company Name: Nano Technologies Israel
Company Address: Noah Mozes 6, Rishon Le Zion, Israel 7565235

Company Telephone: +972 (0) 507337335
Company Contact Name: Yossi Hermon
Company Contact Email: Yossi@NANOPRO-group.com

Emergency phone number: +972 (0) 509006734

SECTION 2: Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

Physical hazards

Flammable Liquids, Category 3

Health hazards

Aspiration hazard, Category 1
Skin Corrosion/Irritation, Category 2
Eye Damage/Irritation, Category 2A
Toxic to Reproduction, Category 2
Specific Target Organ Toxicity (Repeated Exposure), Category 1

Environmental hazards

Not adopted under OSHA paragraph (d) of §1910.1200

PLASTIC.

GHS Signal word: DANGER

GHS Hazard statement(s): Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.

GHS Hazard symbol(s):



GHS Precautionary statement(s):

Prevention:

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat/sparks/open flames/hot surfaces.– No smoking.
- Keep container tightly closed.
- Ground/Bond container and receiving equipment
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wash thoroughly after handling.
- Wear protective gloves/eye protection/face protection

Response:

- If swallowed: Immediately call a poison center/doctor.
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If exposed or concerned: Get medical advice/attention.
- Specific treatment (see sections 4 to 8 on the SDS and any additional information on this label)
- Do NOT induce vomiting.
- If skin irritation occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- Take off contaminated clothing and wash it before reuse.

PLASTIC.

- In case of fire: Use extinguishing media suggested in section 5 to extinguish.

Storage:

- Store in a well-ventilated place. Keep cool.
- Store locked up.

Disposal:

- Dispose of contents/container to a suitable disposal site in accordance with local/regional/national/ international regulations.

Hazard(s) not otherwise classified (HNOC):

None known.

Percentage of ingredient(s) of unknown acute toxicity:

97% of the mixture consists of ingredients of unknown acute toxicity (oral, dermal, inhalation).

SECTION 3: Composition/information on ingredients

Mixture:

Chemical name	CAS#	Concentration (weight %)
Proprietary Component 7	Proprietary	35 – 45%
Proprietary Mixture 1, Component 1	Proprietary	15 – 30%
Proprietary Mixture 8	Proprietary	10 – 20%
Proprietary Component 6	Proprietary	10 – 20%
Proprietary Mixture 2, Component 1	Proprietary	1.5 – 3%
Proprietary Mixture 4, Component 1	Proprietary	1 – 2.5%
Proprietary Component 5	Proprietary	1 – 2%
Proprietary Mixture 1, Component 2	Proprietary	0.5 – 1%
Proprietary Mixture 2, Component 2	Proprietary	< 0.5%

Note: The balance of the ingredients are not classified as hazardous or are below the concentration limit to be classified as hazardous, under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

The specific chemical identities and/or percentage of composition are being withheld as a trade secret.

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SECTION 4: First-aid measures

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Seek medical advice.

Skin contact: In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing and shoes. In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. Seek medical advice.

Eye contact: In case of eye contact, rinse with plenty of water for at least 20 minutes. Get medical attention.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical advice.

Most important symptoms/effects, acute and delayed:

May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

Indication of immediate medical attention and special treatment needed:

If any symptoms are observed, contact a physician and give them this SDS sheet.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media: CAUTION: All these products have a very low flash point:

Use of water spray when fighting fire may be inefficient.

Small Fire: Dry chemical, CO₂, water spray or regular foam.

Large Fire: Water spray, fog or regular foam.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

FLAMMABLE: Will be easily ignited by heat, sparks or flames. Move containers from fire area if you can do it without risk. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.

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Hazardous combustion products may include the following substances: Carbon monoxide, Carbon dioxide, Formaldehyde, Silicon dioxide, Nitrogen oxides. Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment and precautions for fire-fighters:

Wear self-contained breathing apparatus and protective clothing. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8)

Fire involving Tanks or Car/Trailer Loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire.

For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Keep out of drains, surface waters and soil against pollution.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.

Methods and materials for containment and cleaning up:

A vapor-suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material.

Large Spill: Dike far ahead of liquid spill for later disposal.

Water spray may reduce vapor, but may not prevent ignition in closed spaces.

SECTION 7: Handling and storage

Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace. Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air). Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Keep away from heat and direct sunlight. Ground/bond container and receiving equipment. Use explosion proof electric equipment. Use only non-sparking tools. Take measures to prevent the build-up of electrostatic charge.

Conditions for safe storage, including any incompatibles:

PLASTIC.

Store only in unopened original receptacles. Keep in the original containers in a cool and dry place. Keep away from direct light, high temperature and oxidation sources.
Keep in properly labeled, sealed container, with a label which complies with current regulations.

SECTION 8: Exposure controls/personal protection

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200) (Table Z-1 Limits for Air Contaminants):		
Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)
Proprietary Component 7	No data available	No data available
Proprietary Mixture 1, Component 1	No data available	No data available
Proprietary Mixture 8	150 ppm 710 mg/m ³	200 ppm 950 mg/m ³
Proprietary Mixture 2, Component 1	10 ppm	No data available
Proprietary Mixture 4, Component 1	No data available	No data available
Proprietary Component 5	No data available	No data available
Proprietary Mixture 1, Component 2	200 ppm	500 ppm Peak
Proprietary Mixture 2, Component 2	No data available	No data available

US ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEL (15 min)
Proprietary Component 7	200 mg/m ³ (as total hydrocarbon vapor)	No data available
Proprietary Mixture 1, Component 1	No data available	No data available

PLASTIC.

Proprietary Mixture 8	50 ppm	150 ppm
Proprietary Mixture 2, Component 1	No data available	No data available
Proprietary Mixture 4, Component 1	No data available	No data available
Proprietary Component 5	No data available	No data available
Proprietary Mixture 1, Component 2	20 ppm	No data available
Proprietary Mixture 2, Component 2	No data available	No data available

Appropriate engineering controls:

Use only with adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Avoid contact with the eyes and skin.

Concentrations should be monitored hazardous substances in the workplace in accordance with recognized test methods. Mode, method, type and frequency of testing and measurement of harmful factors in the working environment should meet the requirements of local/regional/national laws.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear tight-fitting, chemical splash goggles or face shield. Use equipment for eye protection tested and approved under NIOSH standards.

Skin and hand protection: Wear protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

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 cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. The selected protective gloves have to satisfy the specifications of ASTM F739.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination or ABEK P2 respirator cartridges as a backup to engineering controls. If the respirator is the sole means

PLASTIC.

of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH).

General hygiene considerations: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Wash hands after use.

SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.):

Physical state: Liquid.
Color: Colorless

Odor: Characteristic odor

Odor threshold: Not determined

pH: Not determined

Melting point/freezing point: Not determined

Initial boiling point and boiling range: Not determined

Flash point: Not determined

Evaporation rate: Not determined

Flammability (solid, gas): Not applicable

Upper/lower flammability or explosive limits

Flammability limit – lower (%): Not determined

Flammability limit – upper (%): Not determined

Explosive limit – lower (%): Not determined

Explosive limit – upper (%): Not determined

Vapor pressure: Not determined

Vapor density: Not determined

Relative density: Not determined

Solubility (ies): Not determined

Partition coefficient (n-octanol/water): Not determined

Auto-ignition temperature: Not determined

Decomposition temperature: Not determined

Viscosity (dynamic): Not determined

SECTION 10: Stability and reactivity

Reactivity: Not chemically reactive

Chemical stability: Stable under normal ambient and anticipated conditions of use

Possibility of hazardous reactions: Vapors may form explosive mixture with air

Conditions to avoid: Moisture , Heat, open flames, and other sources of

PLASTIC.

ignition.

Incompatible materials: Materials to avoid include; Bases, Oxidizing agents, Alkali metals, Strong oxidizing agents, Strong acids and oxidizing agents, Strong acids, Halogens.

Hazardous decomposition Products: Carbon Monoxide. Carbon Dioxide, Silicon dioxide.

SECTION 11: Toxicological information

Information on likely routes of exposure:

Inhalation: Expected to be a route of exposure

Ingestion: Expected to be a route of exposure

Skin: Expected to be a route of exposure

Eyes: Expected to be a route of exposure

Symptoms related to the physical, chemical, and toxicological characteristics:

May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation.

Delayed and immediate effects and chronic effects from short or long-term exposure:

Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

Numerical measures of toxicity (such as acute toxicity estimates):

Ingredient Information:

Substance	Test Type (species)	Value
Proprietary Component 7	LD ₅₀ Oral (Rat)	> 5000 mg/kg
	LD ₅₀ Dermal (Rabbit)	> 2000 mg/kg
	LC ₅₀ Inhalation (Rat)	> 6.03 mg/L (aerosol) (4h)
Proprietary Mixture 1, Component 1	LD ₅₀ Oral (Rat)	No data available
	LD ₅₀ Dermal (Rabbit)	No data available
	LC ₅₀ Inhalation (Rat)	No data available
Proprietary Mixture 8	LD ₅₀ Oral (Rat)	10760 mg/kg
	LD ₅₀ Dermal (Rabbit)	10768 mg/kg
	LC ₅₀ Inhalation (Rat)	39 ppm (4h)
Proprietary Mixture 2, Component 1	LD ₅₀ Oral (Rat)	> 5000 mg/kg
	LD ₅₀ Dermal (Rabbit)	No data available
	LC ₅₀ Inhalation (Rat)	105 mg/m ³

PLASTIC.

Proprietary Mixture 4, Component 1	LD ₅₀ Oral (Rat)	No data available
	LD ₅₀ Dermal (Rabbit)	No data available
	LC ₅₀ Inhalation (Rat)	No data available
Proprietary Component 5	LD ₅₀ Oral (Rat)	3122 mg/kg
	LD ₅₀ Dermal (Rabbit)	No data available
	LC ₅₀ Inhalation (Rat)	No data available
Proprietary Mixture 1, Component 2	LD ₅₀ Oral (Rat)	No data available
	LD ₅₀ Dermal (Rabbit)	12000 mg/kg
	LC ₅₀ Inhalation (Rat)	No data available
Proprietary Mixture 2, Component 2	LD ₅₀ Oral (Rat)	1540 mg/kg
	LD ₅₀ Dermal (Rabbit)	794 µL/kg
	LC ₅₀ Inhalation (Rat)	36 g/m ³ (4 h)

Skin corrosion/irritation:	Expected to cause skin irritation.
Serious eye damage/eye irritation:	Expected to cause eye irritation.
Respiratory sensitization:	Not expected to cause respiratory sensitization.
Skin sensitization:	Not expected to cause skin sensitization or allergic reaction.
Germ cell mutagenicity:	This product is not anticipated to be a mutagen.
Carcinogenicity:	This product is not expected to be carcinogenic.
Reproductive toxicity:	This product is expected cause damage to fertility or the unborn child.
Specific target organ toxicity- Single exposure:	Vapors may cause drowsiness and dizziness.
Specific target organ toxicity- Repeat exposure:	Causes damage to the central nervous system through prolonged or repeated exposure.
Aspiration hazard:	May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

Ecotoxicity (aquatic and terrestrial, where available):

Product data: None known

PLASTIC.

Ingredient Information:

Substance	Test Type	Species	Value
Proprietary Component 7	LC ₅₀	Fish - Pimephales promelas (fathead minnow)	45 mg/L (96h)
	EC ₅₀	Daphnia magna	No data available
	EC/LC ₅₀	Algae	No data available
Proprietary Mixture 1, Component 1	LC ₅₀	Fish	No data available
	EC ₅₀	Daphnia magna	No data available
	EC/LC ₅₀	Algae	No data available
Proprietary Mixture 8	LC ₅₀	Fish - Pimephales promelas (fathead minnow)	18 mg/L (96h)
	EC ₅₀	Daphnia magna (Water flea)	44 mg/L (48h)
	EC/LC ₅₀	Algae - Desmodesmus subspicatus	674.7 mg/L (72h)
Proprietary Mixture 2, Component 1	LC ₅₀	Fish	No data available
	EC ₅₀	Daphnia magna	No data available
	EC/LC ₅₀	Algae	No data available
Proprietary Mixture 4, Component 1	LC ₅₀	Fish	No data available
	EC ₅₀	Daphnia magna	No data available
	EC/LC ₅₀	Algae	No data available
Proprietary Component 5	LC ₅₀	Fish	No data available
	EC ₅₀	Daphnia magna	No data available
	EC/LC ₅₀	Algae	No data available
Proprietary Mixture 1, Component 2	LC ₅₀	Fish - Oncorhynchus mykiss (rainbow trout)	5.44 mg/L (96h)
	EC ₅₀	Daphnia magna (Water flea)	8 mg/L (24h)
	EC/LC ₅₀	Pseudokirchneriella subcapitata (Green algae)	10 mg/L (24h)
Proprietary Mixture 2, Component 2	LC ₅₀	Fish - Brachydanio rerio Lepomis macrochirus	> 500 mg/L (96h) > 1000 mg/L (96h)
	EC ₅₀	Daphnia magna (Water flea)	25.2 mg/L (24h)
	EC/LC ₅₀	Algae	No data available

Persistence and Degradability:

Not established

PLASTIC.

Bioaccumulative Potential:

Not established

Mobility in Soil:

Not established.

Other adverse effects (such as hazardous to the ozone layer):

Harmful to the aquatic environment.

SECTION 13: Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.

Product

Dispose of waste materials in accordance with applicable local and national laws and regulations. Where possible, recycling is preferred to disposal or incineration. Contact the proper local authorities.

Contaminated packaging

Since emptied containers retain product residue, follow label warnings even after container is emptied. Dispose of as unused product.

SECTION 14: Transport Information

US Department of Transportation Classification (49CFR)

UN 1139 COATING SOLUTION (includes surface treatments or coatings used for industrial or other purposes such as vehicle under coating, drum or barrel lining), 3, III

IMDG (Transport by sea)

UN 1139 COATING SOLUTION (includes surface treatments or coatings used for industrial or other purposes such as vehicle under coating, drum or barrel lining), 3, III

IATA (Country variations may apply)

UN 1139 COATING SOLUTION (includes surface treatments or coatings used for industrial or other purposes such as vehicle under coating, drum or barrel lining), 3, III

Environmental hazards

Marine pollutant: No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Not applicable

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.

PLASTIC.

None known

SECTION 15: Regulatory Information

USA:

United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200. The product is classified as hazardous under OSHA.

Toxic Substances Control Act (TSCA) – All of the ingredients are listed on the U.S. EPA TSCA Inventory List.

SECTION 16: Other Information

Revision Date: Dec 24th 2018

DISCLAIMER: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 1910.1200. To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.