



SYNTHETIC ENAMEL ENRICHED WITH ANTI-CORROSION GRAPHENE

PRODUCT IDENTIFICATION

Product name: **SYNTHETIC ENAMEL ENRICHED WITH GRAPHENE**

Recommended uses: **Paint for wood and metals.**

Restrictions of use: Not to be used in closed environments.

COMPOSITION/INFORMATION OF THE COMPONENTS.

Preparation: Resins, GRAPHENE, pigments, additives and organic solvents.

Hazardous component:

Mineral turpentine United Nations Number: 1223.

CAS Number: 8008-20-6

Concentration range: 11.31%.

FIRST AID

In case of accidental contact with the product, proceed according to:

INHALATION: Remove victim to fresh air, move victim away from danger area, call for medical help.

SKIN CONTACT: Wash with soap (glycerin) and plenty of water, remove contaminated clothing.

EYE CONTACT: Flush with plenty of running water for 15 minutes. If irritation persists, consult a physician.

INGESTION: Consult a physician immediately. Take MSDS, do not induce vomiting. **EXPECTED ACUTE EFFECTS:** Depression of the Central Nervous System, with symptoms such as headache, dizziness and vomiting.

FORESEEN DELAYED EFFECTS: Not available.

MOST IMPORTANT SYMPTOMS/EFFECTS: Not available.

PROTECTION OF FIRST AID GIVERS: Wear Nitrile-Butyl-Nitrilo-Nitrite procedure gloves.

Notes to Physician: Carry Safety Data Sheet. Sec.

FIRE FIGHTING MEASURES EXTINGUISHING AGENTS : Dry chemical powder, CO2, foam.

AFFF SPECIAL FIRE FIGHTING PROCEDURES: Water fog may not be effective, keep wind at your back, cool exposed containers. Containers, even empty, exposed to fire or temperatures above 50°C. may explode.

PRODUCTS FORMED IN COMBUSTION AND THERMAL DEGRADATION: Carbon Monoxide and Carbon Dioxide.

ASSOCIATED SPECIFIC HAZARDS: Not available.

PERSONAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING: Use of self-contained breathing apparatus SCBA, positive pressure. The use of standard uniform will give limited protection.

MEASURES TO BE TAKEN IN CASE OF ACCIDENTAL SPILL. MEASURES TO BE TAKEN IF MATERIAL IS SPILLED:

Keep unnecessary people away from the site; isolate the work area and do not allow entry.

Disconnect ignition sources - Avoid fires, flames or smoking in the hazardous area. - Ventilate the spill area.

PERSONAL PROTECTIVE EQUIPMENT TO CONTROL THE EMERGENCY:

Tyvec Dupont coverall. - Nitrile-Butyl gloves - Rubber boots - Respiratory protection with filters for organic vapors. - Self-contained breathing apparatus (SCBA) of positive pressure with level B suit in case of a major spill, over 100 lts.

PRECAUTIONS TO BE TAKEN TO AVOID DAMAGE TO THE ENVIRONMENT:

Prevent spills from reaching sewers, fire and/or explosion hazards may be created. Methods for cleaning up: Use non-combustible absorbent material.

WASTE DISPOSAL METHOD: As provided by D.S. N°14.

PHYSICAL AND CHEMICAL PROPERTIES:

Physical state: Liquid Appearance and odor: Easily perceptible hydrocarbon odor.

Color: To election Concentration: 54.37 % solids.

pH: Not applicable

Melting point: -58 °C

Boiling point: 175-270 °C

Decomposition temperature: Not available

Flash point: Higher than 26° °C.

Autoignition temperature: 236 C° C°.

Flammable properties:

Lower flammability limit: 1.2%.

Upper flammability limit: 6% Fire or Explosion Hazards: Vapors may spread a long distance, ignite and flash back.

Vapor pressure at 20°C: 6.7 mbar

Vapor density: 3.67

Density at 20°C: 0.89 - 1.08 gr/ml.

Odor Threshold: 100 ppm Evaporation Rate: 13 (AC. Butyl=100)

Flammability: Not available.

Viscosity: 70-75 UK

Solubility in water and other solvents: Insoluble in water. Soluble in solvents

STABILITY AND REACTIVITY:

Stability: The product is stable under normal conditions.

Restrictions: Avoid static current discharges

Incompatible: Strong oxidizing agents

Hazardous decomposition products: Not known

HANDLING CONDITIONS:

TECHNICAL RECOMMENDATIONS: Store in clean, cool, well-ventilated areas; store in areas away from heat, ignition sources or oxidizing agents.

PRECAUTIONS TO BE TAKEN: Do not smoke in storage areas; use non-sparking tools; for transferring provide an interconnecting cable to dissipate static sparks.

SAFE HANDLING AND SPECIFIC HANDLING RECOMMENDATIONS: Containers should be handled with care.

SAFE AND SPECIFIC HANDLING RECOMMENDATIONS: Empty containers may retain hazardous residues (vapor or liquid).

STORAGE CONDITIONS: Clean, cool, well ventilated areas.

INCOMPATIBLE SUBSTANCES AND MIXTURES: Corrosives, Oxidizers and Peroxides.

CONTAINER MATERIAL: Brass, pet

MEASURES TO REDUCE THE POSSIBILITY OF EXPOSURE:

Product handling areas should have ventilation (natural or forced).

Parameters to be controlled: Permissible weighted limits 1100 mg/m³

Absolute permissible limits: Not applicable

Respiratory protection: Respirator for organic vapors.

Protective gloves: Wear neoprene or butyl nitrile gloves.

Eye protection : Wear chemical goggles.

Other protective equipment: PVC apron for body protection.

Ventilation : Should be good in handling areas.

TOXICOLOGICAL INFORMATION:

Acute oral toxicity: Low toxicity: LD₅₀ > 5000mg/Kg, Rats.

Acute dermal toxicity: Low toxicity: LD₅₀ > 2000 mg/Kg, Rabbits

Acute Inhalation Toxicity: Low toxicity: LC₅₀> 5mg/l/4h, Rats

Skin irritation/corrosion: Skin irritation, in extreme cases.

Eye irritation/irritation: Eye irritation.

Respiratory or skin sensitization: None.

Reproductive cell mutagenicity: Not expected to be harmful to fertility.

Carcinogenicity: Not classified as a carcinogen.

Reproductive toxicity: Not classified as developmental toxicant.

Specific target organ toxicity: Aspiration into the lungs when vomit is swallowed may cause chemical pneumonia which may be fatal.

Particular Single Exposure: High concentration may cause central nervous system depression resulting in headaches, dizziness and nausea.

Particular repetitive exposures: Kidney: causes renal effects in male rats that are not relevant in humans

Inhalation Hazard: Inhalation of vapors or mists may cause irritation to the respiratory system.

Toxicokinetics: No information available

Metabolism: Acute pathogenicity and infectivity (oral, dermal and inhalation): No information.

Endocrine disruption: No information available.

Neurotoxicity: No information available

Immunotoxicity: No information

ECOLOGICAL INFORMATION:

Ecotoxicity: Stable.

Persistence/degradability: Degradable in the medium term.

Bioaccumulative potential: Contains components with the potential to bioaccumulate
Mobility in Soil: Large amounts may enter soil and contaminate ground water.

FINAL DISPOSAL CONSIDERATIONS Remaining product, containers and contaminated material should be disposed of in accordance with current legislation (DS N°148), in authorized locations, where they will be treated according to their flammable nature (recovery and/or incineration).

TRANSPORT INFORMATION MODE OF TRANSPORT LAND TRANSPORT REGULATIONS DS N°298 N°
NU: 1263 OFFICIAL TRANSPORT DESIGNATION: FLAMMABLE LIQUID - HAZARDOUS CLASSIFICATION

PRIMARY HAZARD CLASSIFICATION NU FLAMMABLE PACKAGING GROUP: II ENVIRONMENTAL
HAZARDS Avoid spillage into watercourses.

APPLICABLE NATIONAL STANDARDS Applicable national standards: Supreme Decree N°594
"Regulations on basic sanitary and environmental conditions in workplaces Supreme Decree N°148
"Sanitary regulations on hazardous waste management" Decree N°298 "Regulations on transport of
hazardous cargoes on streets and roads".