



MATERIAL SAFETY DATA SHEET

Revision Date: 28/05/2013
Date Issued: 28/05/2013

POLYNER[®] JET

I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

NOMBRE COMERCIAL: POLYNER[®] JET
CLASE DE PRODUCTO: POLYURETHANE
CHEMICAL FAMILY: POLYURETHANE POLYESTER
HEALTH: WARNING

INFORMATION ON

MANUFACTURER/SUPPLIER: EL NERVION S.A DE C.V.
ALDAMA # 5, SAN. JERÓNIMO TEPETLACALCO,
TLALNEPANTLA, EDO. MÉXICO, 54090
MÉXICO
TELEPHONE: +52 (55) 5361-0207
TELEFAX: +52 (55) 5361-9476

II. COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	COMPONENTS	CAS NUMBER	CONCENTRATION [%]
01	POLYESTER RESIN BRANCHED HYDROXYL GROUPS	CONFIDENTIAL	34.0
02	MEG ACETATE	108-65-6	1.60
03	BUTYL ACETATE	123-86-4	1.60
04	PIGMENT	VARIOUS	26.0
05	SOLVENTS POLYURETHANE	MIX	15.6
06	SILICON DIOXIDE	11945-52-5	1.6
07	ZINC OCTOATE	CONFIDENTIAL	0.40
08	REACTIVE PLASTICIZER	CONFIDENTIAL	0.60
09	ANTI SCRATCH ADDITIVE	CONFIDENTIAL	0.16
10	DISPERSANT POLYMER	CONFIDENTIAL	0.30
11	LEVELING ADDITIVE	CONFIDENTIAL	0.30
12	CAB	9004-36-8	3.39

III. HAZARDS IDENTIFICATION

Emergency Overview

Physical Appearance

Form: Liquid
Colour: Pigmented
Odour: Characteristic
Water solubility: Insoluble



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pH: Not determined

EXPOSURE EFFECTS: Flammable. Could be released gases / toxic fumes during combustion and / or thermal decomposition. A closed container may burst under extreme heat or when the content has been contaminated with water. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Vapors or mist may pose a risk of fire and explosion if exposed to high heat or ignition. Vapors can travel to areas outside the workplace before lighting / back to vapor source. Ground containers and equipment before making the transfer to avoid static sparks. Has been associated with prolonged and repeated occupational overexposure to solvents with brain damage and nervous system permanently. Intentional misuse by deliberately concentrating or inhaling solvents may be harmful or fatal. Cause respiratory tract irritation. May cause allergic respiratory reaction. Harmful if inhaled. Respiratory sensitizer. The damage to the lungs and respiratory sensitization may be permanent. Cause skin irritation. May cause allergic skin reaction. Skin sensitizer. Apr animal experiments and other research indicate that diisocyanates Contact with skin may play a role in the causes of sensitization to isocyanates and respiratory reaction. Cause eye irritation, may cause lung damage, can affect the nervous system, can cause brain damage, liver damage, can cause kidney damage.

Potential health effects

OVER-EXPOSURE (prolonged or repeated use): CAN AGGRAVATE OR ACCENTUATE ANY OF THESE EFFECTS.

SKIN CONTACT: Irritating. Can be absorbed through skin. Frequent or prolonged contact may cause irritation, defeating and drying of skin.

INHALATION: Irritant. Inhalation of aerosol may cause irritation of the upper respiratory tract. May cause severe burns tract, eyes, skin and respiratory tract. May cause irritation of nose, throat and lungs. Inhalation of vapors and / or aerosols in high concentration may cause irritation of the respiratory system.

EYES CONTACT: Causes eye burns. It can cause blindness. Severe eye irritation.

INGESTION: The hazards of this material have not been fully investigated; ingestion may be hazardous. Harmful if swallowed. Aspiration into lungs can damage lungs and cause chemical pneumonia. DO NOT INDUCE VOMIT.

Medical conditions aggravated: Eye disorders skin disease and allergies. Adverse effects on the skin (such as rash, irritation or corrosion). Adverse ocular effects (such as conjunctivitis or corneal damage). Asthma. Adverse respiratory effects (such as cough, chest tightness or shortness of breath).

PRIMARY ROUTE(S) OF ENTRY: skin contact, inhalation, ingestion eye contact.



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IV. FIRST AID MEASURES

GENERAL ADVICE

Consult a physician. If breathing has stopped or is labored, give assisted respiration. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

Inhalation

If inhalation of mist or spray, take the affected person and take it to a cool place. Appearance of any inconvenience include severe irritation of the mucus lining of the (nose, throat and eyes), sneezing, coughing and tears flow. In case of persistent discomfort, seek medical attention immediately. If breathing has stopped or is labored give assisted respirations, supplemental oxygen may be indicated. If the heart has stopped trained personnel should begin cardiopulmonary resuscitation immediately move to a fresh air.

Skin contact

Immediately remove contaminated clothing, and any chemical odd if possible to do so without delay. Rinse immediately with plenty of water for at least 20 minutes. Cover wound with sterile gauze. Remove contaminated clothing and shoes. NOTE TO PHYSICIANS: Application corticosteroid cream was effective in the treatment of skin irritation.

Eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, or if necessary with an eyewash solution. If you have persistent discomfort, consult an ophthalmologist.

Ingestión

Malaise If medical attention immediately. Do not induce vomiting. If the person vomit and is lying on her back, will be placed in the recovery position, prevent aspiration of vomit, turn the victim's head to the side.

V. FIRE-FIGHTING MEASURES

FLASH POINT:	approx. 116.6°F (47°C)
LOWER EXPLOSIVE LIMIT:	1.5%
UPPER EXPLOSIVE LIMIT:	10.8%
AUTOIGNITION TEMPERATURE:	Not determined
FLAMMABILITY-OSHA:	COMBUSTIBLE - CLASS II
OSHA FLAMMABILITY CLASSIFICATION:	FLAMMABLE LIQUID

SUITABLE EXTINGUISHING MEDIA: alcohol-resistant foam, carbon dioxide, dry chemical, water fog (water spray for large fires), dry sand, limestone powder.

SPECIFIC HAZARDS DURING FIRE FIGHTING: In case of fire cool endangered containers with water. Closed container may rupture if strongly heated. Flammable liquid. Vapors may



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reach an ignition source and flash back. Explosive mixtures may form at temperatures at or above the flash point. The risk that personnel is downwind be evacuated.

EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS: Not applicable.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

HAZARDOUS DECOMPOSITION PRODUCTS: Can generate ammonia gas can generate toxic gases of nitrogen oxides, may generate incomplete combustion of carbon monoxide, carbon dioxide, toxic gases or fumes.

OSHA FLAMMABLE CLASS: Combustible Liquid, Class II.

VI. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Ventilate area, remove sources of spark or flame, and remove with inert absorbent.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

♦ **SMALL SPILL:** ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

♦ **LARGE SPILL:** ELIMINATE ALL IGNITION SOURCES. PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID WAY BE TAKEN UP ON SAND CLAY, EARTH, FLOOR ABSORBENT AND SHOVEL INTO CONTAINERS. PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER, BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED THAT A SPILL HAS OCCURED.

WASTE DISPOSAL METHOD:

♦ **SMALL SPILL:** ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPOURS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

♦ **LARGE SPILLS:** DESTROY BY LIQUID INCINERATION. CONTAMINATED ABSORBENT WAY DEPOSITED IN LANDFILL IN ACCORDANCE WITH LOCAL STATE AND FEDERAL REGULATIONS.



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VII. HANDLING AND STORAGE

HANDLING

General Procedures Handling

Advice on Safe Handling:

Use gloves chemically resistant to this material. Examples of preferred barrier materials for gloves include: Polyethylene, Ethyl vinyl alcohol laminate (EVAL) Polyvinyl alcohol ("PVA") Viton. Examples of acceptable glove barrier materials are Neoprene Butyl rubber. Natural rubber ("latex") Polyvinyl Chloride ("PVC" or vinyl) Nitrile / butadiene rubber ("nitrile" or NBR). NOTE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into consideration relevant factors in the workplace such as, but not limited to: Other chemicals which may be handled, requirements physical (protection against cuts / punctures, dexterity, thermal protection), potential body reactions to glove materials, well as the instructions / specifications provided by the glove supplier. Use respiratory protection when spray applied. Ensure adequate ventilation. Use only in well ventilated areas. Avoid breathing vapors or aerosols. Avoid contact with skin and eyes. Emergency showers and eyewash stations should be readily accessible. It must obey and follow the rules established working practices by government regulations. Avoid contact with eyes. Use personal protective equipment. When using material NOT EAT, DRINK OR SMOKE.

Advice on protection against fire and explosion: Take precautionary measures against static charges; keep away from sources of ignition.

STORAGE

Requirements for storage areas and containers

Keep containers tightly closed in cool, well-ventilated place.

Shelf

life:

12 months @ 25°C (77°F): After the date of manufacture.



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Further Information

Keep tightly sealed in original packing. Do not store in reactive metal containers.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures

Provide for good ventilation if vapours/aerosol are formed.
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment

General protective measures: Avoid contact with eyes and skin.

Hygiene measures: No smoking, eating or drinking allowed when using this product. Wash hands before breaks and at end of work shift or using the toilet.

Respiratory protection: Wear appropriate respirator when ventilation is inadequate. In case of formation of vapors/aerosols: respiratory protective equipment, cartridge for **organic gases and vapors**.

Hand protection: Use gloves chemically resistant to this material. Examples of preferred barrier materials for gloves include: Polyethylene. Ethyl vinyl alcohol laminate (EVAL) Polyvinyl alcohol ("PVA") Viton. Examples of acceptable glove barrier materials include: Butyl rubber Neoprene. Natural rubber ("latex") Polyvinyl Chloride ("PVC" or "vinyl") Nitrile / butadiene rubber ("nitrile" or "NBR").

Eye protection: Chemical resistant goggles must be worn.

Protective clothing: Light protective clothing is required.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid
Colour: Transparent and pigmented
Odour: Characteristic
Water solubility: Insoluble
pH: Not applicable
Melting temperature: Not measured



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Boiling temperature: >140°F (60°C)
Vapour pressure: 0.7 - 5.7 mmHg @ 77°F (25°C)
Flash point: approx. 116.6°F (47°C)
Density: 1.1500 - 1.3500 g/cm³
Viscosity: 50.0 - 90.0 cPs

X. STABILITY AND REACTIVITY

Thermal decomposition: The decomposition products depend on the temperature, the air supply and the presence of other materials. Gases are released during decomposition.

Hazardous reactions: No hazardous reactions know with proper storage and handling.

Hazardous polymerization: No

Stability: This product is stable under normal storage conditions.

Hazardous decomposition products (BY FIRE, BURNING OR WELDING): During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and / or irritating. The combustion products may include but are not limited to: carbon monoxide. Carbon dioxide (CO₂).

Materials to avoid: Avoid contact with water or moisture.

Conditions to avoid: Avoid exposure to high temperatures and contact with sources of ignition (sparks, flames, etc.).

Dangerous reactions: No determined.

XI. TOXICOLOGICAL INFORMATION

LD50 (ACUTE ORAL TOX): No determined.
LD50 (ACUTE DERMAL TOX): No determined.
LD50 (ACUTE INHALATION TOX): No determined.
EFFECTS OF CHRONIC EXPOSURE: Not available.
SENSITIZATION: No determined.
CARCINOGENICITY: No determined.
REPRODUCTIVE TOXICITY: No determined.
TERATOGENICITY: No determined.
MUTAGENECITY: No determined.



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XII. ECOLOGICAL INFORMATION

Movement and distribution

No determined.

Persistence and Degradability

No determined.

Biodegradation Tests (OECD):

No determined.

ECOTOXICITY:

No determined.

XIII. DISPOSAL CONSIDERATIONS

The arrangement shall be in accordance with environmental control laws federal, state and local existents. Incineration is the preferred method.

Product disposal and Disposal requirements:

In accordance with local authority regulations, take to special waste incineration plant.

Contaminated packaging:

Empty containers are waste product, observe all precautions for product. Do not heat or cut empty containers with electric or gas welding because they form highly toxic vapors and gases. If empty contaminated containers are recycled or disposed of, the receiver must be informed about the possible dangers.

DO NOT HEAT OR CUT THE EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH.

XIV. TRANSPORT INFORMATION

DOT (INLAND)

Proper Shipping name:	POLYNER® JET
Class:	3
UN/ID No:	1263
Packing Group:	III
Risk Label:	3



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IATA/ICAO (AIR)

Proper Shipping name: POLYNER® JET
Class: 3
UN/ID No: 1263
Packing Group: III
Risk Label: 3

IMDG/IMO (SHIPPING)

Proper Shipping name: POLYNER® JET
Class: 3
UN/ID No: 1263
Packing Group: III
Risk Label: 3

XV. REGULATORY INFORMATION

Federal regulations of the United States

Standard Classification Hazard Communication OSHA: **dangerous**

HMIS RATINGS

XVI. OTHER INFORMATION

NFPA RATING

Clasificación NFPA 704M

HEALTH: 2
FLAMMABILITY: 3
RAECTIVITY: 0
OTHERS: G

0 = Insignificant
1 = Slight
2 = Moderate
3 = High
4 = Extreme

Clasificación HMIS

HEALTH: 2
FLAMMABILITY: 3
PHYSICAL HAZARD: 0

0 = Insignificant
1 = Slight
2 = Moderate
3 = High
4 = Extreme
* = Chronic Hazard for Health.

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.

<END OF MSDS>