

Material Safety Data Sheet

Plant: Calzada de Guadalupe No. 504
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SECTION I .- GENERAL DATA FOR CHEMICAL SUBSTANCE

Product key: Plastic pail
 Product name: HDPE Pail
 Usage. Packaging material

SECTION II .- GENERAL INFORMATION OF CHEMICAL SUBSTANCE

1.- Chemical name or code High density Polyethylene	2.- Commercial name High density Polyethylene
3.- Chemical family Polymers	4.- Formula $(-CH_2-CH_2-)_n$
5.- Synonyms Polyethylene resin, Ethylene polymer, HDPE, Plastic.	6.- Other information N/A

SECTION III .- COMPONENT IDENTIFICATION

1.- % & name from components	2.- CAS number	3.- NU number:	Safety risk							
			NFPA				HMIS			
			H	F	R	PP	H	F	R	PP
High density Polyethylene, 100%	9002-88-4	N/A	0	0	0	---	0	1	0	---

Type	Health	Flamm.	React.	Specific risk.	PP	Norm dependance	Exp-lim (TLV-TWA)	Exp-lim (TLV-STEL)	Exp-lim (TLV-CEILING)	IPVS (IDLH)
HFPA	0	0	0	---		NOM-010-STPS	N.A.	N.A.	N.A.	N.A.
HMIS	0	1	0	---	---	ACEGIH	10 ppm	N.A.	N.A.	

SECTION IV .- PHYSICAL PROPERTIES

1.- Boiling point [°C] N/A	2.- Melting point [°C] 105 - 135	
3.- Inflammation temperature [°C] N/A	4.- Auto ignition temperature [°C] 330 – 410	5.- pH N/A
6.- Relative density (Water=1) 0.93	7.- Vapor density (Air=1), @ 0°C and 1atm N/A	
8.- Molecular weight N/A	9.- physical state, appearance and odor: An open head with several capacities with or without pigment	
10.- Evaporation rate (Butyl-acetate=1) N/A	11.- Solubility in water, %: Insoluble	
12.- Vapor pressure (mm Hg @ 25°C) N/A.	13.- Volatility %: N/A.	
14.- Flammability and explosion limits, % in volume Inferior N/A Superior N/A	15.- Other data Decomposition temperature: >300°C	

SECTION V .- FIRE AND EXPLOSIONS RISKS

1.- Extintion method: Water fog: Yes Foam: Yes CO2: Yes Dry chemical powder: Yes Other (Specify):
2.- Personal protection equipment in firefighting Integral firefighting equipment and self-contained breathing apparatus.
3.- Procedure and precautions during firefighting Apply water fog. Place against wind. Combat fire at maximum distance.
4.- Conditions that lead to special risks: The solid resin will burn with ease, emitting black, dense and irritating fume. An elevated dust concentration in the air can lead to an explosive mixture. Is possible that can accumulate dangerous static charge.
5.- Combustion products dangerous to health Once the polyethylene heats, produces oligomers, waxes and oxygenated hydrocarbon, organic fumes. The inhalation of these fumes can be dangerous.

SECTION VI . - HEALTH RISK AND FIRST AID MEASURES

1.- Healt effects		
Risk:	Health effect:	First aids:
A) Eyes	Irritations (dust), severe burnings and blinding (hot material or melted)	Wash with eyelids open and water during 15 min. Get medical attention immediately.
B) Skin	Irritations (dust), severe burnings (hot material or melted)	Wash with water and soap during 15 min. In case contact with melted material, cool down the area quickly with water. Get medical attention immediately.
C) Ingestion	Pain, aches and gastrointestinal irritation	Don't wait for gastrointestinal absorption. Do not induce vomit. Get medical attention immediately.
D) Inhalation	Inhalation inflammation (dust), irritation in respiratory system, lung's edema, asthma (fumes generated in thermal process)	Remove patient from exposure to fresh air immediately. Administer approved oxygen supply if breathing is difficult. Get medical attention immediately.

2.- Chemical substances considered as:		
Carcinogenicity: N.A. Mutagenicity: N.A Teratogenicity: N.A Reproductive: N.A. Other (specify):		
STPS (NOM-010-STPS)	Yes	No
Approved source	Yes	No
		Specify: N.A.
3.- Complementary information		
CL50: Inhalation level for rats was 12g/m ³ /30 min		
4.- Other health risks and effects		
The dust and fumes emanated to the atmosphere produce eye irritation, skin and to respiratory system. The fine filings produce explosive mixtures of air and dust. The spilled material can create a serious slipping danger. The handling equipment must be connected to physical hearth to dissipate static charges.		
5.- Antidotes (if exist)		
N/A		
Notes to physician		
For inhalation supply oxygen. Check protocol for intoxication attention		

SECTION VIII .- ACCIDENTAL RELEASE MEASURES

1.- Procedure and immediate precautions

Isolate the area. Keep non-necessary personnel away from the area. Notify emergency and firefighters. Stop leaking/spilling, isolate and contain the leaking/spilling. Avoid the inlet to sewers, basements and confined areas. The solid spilled must be placed in a proper container. Recycle or reuse when possible.

2.- Mitigation method

In case of leaking/spilling the source must be fixed. Avoid inlet to sewers or sinks.

SECTION IX .- SPECIAL PROTECTION

Use integral personal protection equipment, self-contained breathing apparatus. Verify the tightness of personal protection equipment.

SECTION X .- HANDLING INFORMATION

The units used to transport the material must comply with the Official Mexican Norms applicable, issued by the Communication and Transportation Secretary and the current transport regulation for dangerous products and wastes land transportation.

All units used for transport must have the emergency information for the substances, and dangerous materials and wastes transportation, that contain the actions to be carried out in case of incident or accident (spilling/leaking, explosions, fires, expositions, etc), in an accessible place in the unit, away from the cargo, according to the NOM-005-SCT-2000.

The transport unit must have identification signs; and must carry the number identified by the UN for the product, according to the indications of the NOM-003-SCT-2000, and NOM-004-SCT-2000 as well with the dangerous materials and wastes transportation contemplated in the NOM-024-SCT/2003.

All containers and packing: Like the units designed for land transportation of dangerous products, must be checked periodically to guarantee their optimal conditions. For this inspection the Official Mexican Norms applicable to the Communication and Transportation Secretary, such as NOM-006-SCT2-2000.

SECTION XI .- ECOLOGICAL INFORMATION

For its properties it is not a hazard to the environment, but due to the volume it can have an impact in water bodies and soil. The product can be degraded in the surround.



SECTION XII .- SPECIAL PRECAUTIONS

1.- Precautions that must be taken during handling and storage:

According to the dispositions and norms of the Environment and Natural Resources Secretary (SEMARNAT) the air, water, soil and dangerous waste.

Dispose of the container and the product according to the Federal, State and Local Regulations.

Measures for the wastes:

Neutralize with water, the water dissolves the product, don't allow saturated water flows thru rain piping for this will pollute the environment, increasing the alkalinity in rivers affecting the sea animals

2.- Other precautions .

The static electricity is an imminent risk, that is difficult to predict it's concentration and sudden discharge. Check the Official Mexican Norm NOM-022-STPS-1999, Electrical charge in working centers – Security and Hygienic conditions.

The information in this safety sheet (MSDS), was made according to the Official Mexican Norm NOM-018-STPS-2000.

The information is considered correct, but doesn't pretend to be limitative and must be used only as a guideline.