

# Material Safety Data Sheet

## 1. Material and company information

1.1 Product name: EPDM PLUGZ (Ethylene Propylene Diene Monomer)  
Chemical name: (IUPAC) Copolymer of Ethene with Propylene –1 and 5-ethylidene-2 – norbornene

1.2 Supplier's Name: Integrity Products & Supplies Inc.  
Address: 56 Liberty Road, Sherwood Park, AB T8H 2J6  
Phone: 250-264-8374

## 2. Product composition

Chemical characterization: Copolymer of Ethene with Propylene –1 and 5-ethylidene-2–norbornene

Empiric formula  $[(C_2H_4)_x(C_3H_6)_y(C_{10}H_{12})_z]_n$

Physical state Solid, non- volatile material

Color: Black

Odor: None

Impurities: None

## 3. Hazardous effects

Impact on human nontoxic or irritant action on respiratory organs under normal industrial usage.

Eye contact: Mechanical irritation of retina (when rubber is fragmented)

Skin contact: Not hazardous under normal industrial usage.

Contact with hot product could result in thermal burns.

Hygienic requirements: MAC for rubber in bales is not established

## 4. First aid

Inhalation: Not hazardous under normal industrial usage. In case of asphexia due to burning products take the victim to fresh air.

In respiratory arrest artificial ventilation is to be performed.

Skin contact: No first aid is usually required.

In contact with hot product immediately wash with big amount of cold water. Apply dressing with (2-3%) sodium bicarbonate solution for 1-2 days.

Eye contact: This is a hard inert product. Remove particles by a handy clean object.

Medical aid (in carbon monoxide poisoning): If breathing is normal, start oxygen inhalation, alternate it every 10-15 minutes with carbogen inhalation (mix of oxygen with 5-7 % CO<sub>2</sub>)

## 5. Measures and means for fire safety

Proper fire fighting means Inhibitory means Water, CO<sub>2</sub>, foam, dry powder, steam, inert gas raz – nitro-gen: Not established

Hazardous products of decomposition in Ethylene, propylene, carbon oxides product burning

## **6. Accidental Release Measures**

Collect and forward for further processing to the adjacent branches of production.

## **7. Storage and handling regulations**

7.1 No particular precautions to handle.

7.2 Storage

The product is stored at the ambient temperature indoors far from heat sources unreachable by the fire sources, direct sunshine and atmospheric precipitations. The indoor temperature should not exceed 30 °C. A warehouse should be equipped with lighting, explosion-proof ventilation systems.

## **8. Regulations and measures for personnel safety**

8.1 In working with the product there should be observed the requirements to the equipment, regulations to transport and store, provision of combined plenum-exhaust ventilation.

8.2 MAC for thermal decomposition products: polypropylene, polyethylene, carbon oxide.

MAC max decomp. working space - 10 mg/m<sup>3</sup>

MAC (CO<sub>2</sub>) working space. - 20 mg/m<sup>3</sup>

8.3 Measures and means of personal protection

Hand protection: Antitherm gloves, if the product is hot

Eye protection: Goggles for open systems (when fragmenting).

Protection of respiratory organs: Not required in standard environment. In emergency with product burning – filtering gas – mask, type A, BKF.

Special precautions: Not required

## **9. Physical and chemical properties**

9.1 Product property

Aggregative state: Hard polymer in bales

Color: black and yellow

Odor: None

9.2 Fire risk and other properties

Chemical reactivity: Destruction and cross-linking under O<sub>2</sub> and O<sub>3</sub>, accelerating under light and heat.

Solubility: Soluble in hydrocarbons and their chloro derivatives. Not soluble in water and fats.

Content of the main element: Propylene molar part (33- 40) %

Ethylene molar part (50- 56%)

## **10. Stability and chemical activity**

Stability Extraordinary stable

Thermal decomposition products Carbon monoxides, hydrocarbons

### **11. Toxicological information**

Toxicity DL50 = more than 10000mg/kg, intragastric, rats

CL50 = not reachable

Acute toxicity

Concentrations of minimal toxic effect: Taking inside of oily and water extracts during 15 months by the rats have not caused any pathological changes of inner organs.

Cumulative Weak

Clinical presentation of acute poisoning: Not evident

Skin absorption effect: Not established

Sensibilizing action: Data not available

Embryotropic action: Data not available

Gonadotropic action: Data not available

Teratogenic action: Data not available

Mutagenic action: Data not available

Cancerogenic action: Data not available

Human being Animals: Data not available

### **12. Environmental effect**

Biological dissimilation: Data not available

MAC for basins: The content of suspended matters should not increase by more than 0,25mg/dm<sup>3</sup> (for central or not central utility and potable water supply to catering facilities; 0,75mg/dm<sup>3</sup> – in basins for swimming, sports and recreation of people, as well as for basins within inhabited localities. Suspensions with precipitation rate more than 0,4mm/sek for flowing basins and more than 0,2mm/sek for reservoirs are forbidden for discharge.

In the environment: Not transformed

Product transformation: None

### **13. Disposal of wastes**

Rubber wastes, rejected unrecoverable rubber are utilized in adjacent branches of production (roofing, road surface, mastics and etc.)

### **14. Transportation regulations**

Transportation of the product shall be accomplished by any kind of transport inside the covered transport facility in conformity with the Rules in force for transportation of cargo. Rubber bales are not classified as the hazardous cargo follow the dangerous goods regulation of IATA (international air transport association).

### **15. Regulatory information**

Follow all regulations in your country.

**16. Other information**

Additional health hazard data: N/A