

## HIPLEX®

Date of issue: 20.11.2010.

SDS No.: 02  
Version (en): 2

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE

<b>Product name</b>	HIPLEX® HHM 5202; HIPLEX® HHM 5502; HIPLEX® TR-130; HIPLEX® TR-144; HIPLEX® TR-455n; OFF granulat i prah: HIPLEX®00041 OFF; HIPLEX®00042 OFF; HIPLEX®00043 OFF; HIPLEX®00044 OFF; HIPLEX®00045 OFF; HIPLEX®00047 OFF; HIPLEX®00048 OFF	
<b>Chemical Family</b>	Polymer	
<b>CAS Number</b>	25213-02-9	
<b>Chemical Name</b>	Ethylene – 1-Hexene Copolymer	
<b>Synonyms</b>	High Density Polyethylene; HDPE; 1-Hexene, polymer with ethylene;	
<b>Type of use</b>	HIPLEX® HHM 5202 i HIPLEX® HHM 5502: Blow moulding of small and medium size containers; HIPLEX® TR-130 i HIPLEX® TR-144: Tubular films extrusion; HIPLEX® TR-455n: Blow moulding; pipe extrusion;	
<b>Company</b>	„HIP-Petrohemija“ Pancevo Spoljnostarcevačka 82 26000 Pancevo Republic of Serbia	Customer Service Tel: +381(0)13 307 000 Fax: +381(0)13 310 207 Email (competent person): <a href="mailto:prodaja@hip-petrohemija.rs">prodaja@hip-petrohemija.rs</a> Webpage: <a href="http://www.hip-petrohemija.com">www.hip-petrohemija.com</a>
<b>Supplier</b>	REACHLaw Ltd. (acting as only representative according to REACH Article 8) Keilaranta 15 02150, Espoo, Finland	Tel: +358(0) 9 412 3055 Fax: +358(0) 9 412 3049 Email (competent person): <a href="mailto:SDS@reachlaw.fi">SDS@reachlaw.fi</a> Webpage: <a href="http://www.reachlaw.fi">www.reachlaw.fi</a>
<b>Emergency Contact (24h)</b>	See Section 16. for the list of telephone numbers of poison centers in the European Economic Area	

### SECTION 2: HAZARD IDENTIFICATION

<b>CLP:</b>	Not classified	
<b>GHS:</b>	Not classified	
<b>Adverse environmental effects</b>	There are no adverse environmental effects	
<b>Adverse physical-chemical effects</b>	There are no adverse physical-chemical effects	
<b>Signs and Symptoms of Acute Exposure</b>		
<b>Skin</b>	Air-dust mixtures and cause mechanical irritation to skin. Molten polymer may cause thermal burns.	
<b>Inhalation</b>	Fine dust may cause irritation of respiratory system and mucous. If heated to more than 130°C, the product may form vapours or fumes, which may cause irritation of respiratory tract and cause coughing and sensation of shortness of breath.	
<b>Eyes</b>	Mechanical irritation is possible	
<b>Ingestion</b>	Ingestion not a likely route of exposure	
<b>Chronic Health Effects</b>	No known chronic health effects	
<b>Conditions Aggravated by Exposure</b>	No known conditions are aggravated by this material	

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

**EU Inventory:** Additives listed on European Inventory of Existing Chemical Substances (EINECS); the product is a polymer, following the European regulation, registration on the EINECS inventory is not required

Component Name	CAS #	EU Inventory EC #	Index No.	Concentration Wt.%
Ethylene – 1-Hexene Copolymer	25213-02-9	/	/	99.7 – 99.9
Additives*	Mixture	/	/	0.1 – 0.3

\*Slip agent and antioxidants

### SECTION 4: FIRST AID MEASURES

<b>General</b>	The product does not present a danger to human health by inhalation, ingestion or to the aquatic in the form in which it placed on the market. Accumulated fine dusts may form air-dust mixtures and cause mechanical irritation to skin, eyes and respiratory system. Spilled product may cause dangerous slipping hazard. Under fire conditions product will readily burn and emit a heavy, irritating smoke. Contact with molten material may cause serious thermal burns. Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid.
<b>Inhalation</b>	Move affected individual to non-contaminated air. Loosen tight clothing such as collar, tie, belt or waistband to facilitate breathing. Seek immediate medical attention if the individual is not breathing, is unconscious or if any other symptoms persist. Inhalations of smoke following a fire may result in delayed pulmonary edema seek immediate medical attention.
<b>Skin</b>	If molten material contacts the skin, immediately flush with large amounts of water to cool the affected tissue and polymer. Do not attempt to peel polymer from skin. Obtain immediate emergency medical attention if burn is deep or extensive.
<b>Eyes</b>	Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention if symptoms develop or persist.
<b>Ingestion</b>	Material is not expected to be absorbed from the gastrointestinal tract. <b>DO NOT INDUCE VOMITING.</b> Loosen tight clothing such as collar, tie, belt or waistband. Seek immediate medical attention.
<b>Note to Physician</b>	There is no specific antidote; treatment of overexposure should be directed at control of symptoms and the clinical condition of the patient. Treat burns or allergic reactions conventionally after decontamination.

### SECTION 5: FIRE FIGHTING MEASURES

<b>Flammable Properties</b>	Polymer will burn but does not easily ignite.
<b>Extinguishing Media</b>	Water fog or water spray. In the case of small fires, dry chemical or carbon dioxide or foam can be used
<b>Extinguishing Media (which shall not be used for safety reasons)</b>	/
<b>Hazardous Combustion Products</b>	Carbon monoxide, olefinic and paraffinic compounds, traces amounts of organic acids, ketones, aldehydes and alcohols may be formed.
<b>Protective Equipment/Clothing</b>	Wear an approved positive pressure self-contained breathing apparatus and fire-fighter turnout gear.
<b>Fire Fighting Guidance</b>	Polymer dust particles in the atmosphere are combustible and may be explosive. Keep away from heat, sparks, flame and all other ignition sources. Keep container closed. Prevent dust accumulations and dust clouds.

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Extra personal protection</b>	Wear appropriate protective equipment and clothing during cleanup. Individuals without appropriate protective equipment should be excluded from area of spill until cleanup has been completed.
<b>Environmental precautions</b>	Prevent entry into ditches, sewers and waterways.
<b>Recommended methods for cleaning and disposal</b>	Stop leak, isolate and contain spill. Prevent entry into sewers, drains, underground and confined spaces, water intakes and waterways. Spilled product may create a dangerous slipping hazard. Use appropriate tools to put the spilled solid in an appropriate disposal or recovery container. Reuse or recycle where possible.

### SECTION 7: HANDLING AND STORAGE

<b>Handling</b>	Keep away from heat, sparks, open flame, or any ignition source. Use with adequate ventilation. Spilled material can make walking hazardous, potentially causing falls and serious injury. After handling, always wash hands thoroughly with soap and water.
<b>Storage</b>	Store in dry, well-ventilated area at ambient temperature and at atmospheric pressure in original packaging (plastic or cardboard boxes) or in silo made of appropriate material (aluminium, stainless steel). Do not store near highly flammable materials. Keep container dry. Store away from excessive heat and away from strong oxidizing agents. Keep container closed to prevent contamination. Prolonged storage preferably out of the sun or other sources of radiation
<b>Specific use(s)</b>	Used in different type of industry. Handling with material according to Section 7 part Handling.

### SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

ACGIH exposure limit lists have been checked for particles/dust. Other exposure limits may apply, check with proper authorities.

Respirable and inhalable particles, total dust*	<b>ACGIH</b>	TWA: 3 mg/m <sup>3</sup> (Respirable particles); TWA: 10 mg/m <sup>3</sup> (Inhalable particles)
	<b>OSHA</b>	TWA: 5 mg/m <sup>3</sup> (Respirable particles); TWA: 15 mg/m <sup>3</sup> (Total dust)

\*Product is pellets or powder, not a dust or finely divided particle

#### Chemical Safety Report

<b>Derived No Effect Levels (DNEL)</b>	Not available
<b>Predicted No Effect Concentration (PNEC)</b>	Not available

Engineering methods to reduce hazardous exposure are preferred controls. Method includes mechanical ventilation (dilution and local exhaust) process or personal enclosure, remote and automatic operation, control of process conditions, leak detection and repair system, and other process modification. Ensure all exhaust ventilation systems are discharged to outdoors, away from air intakes and ignition sources. Supply sufficient replacement air to make up for air removed by exhaust system.

<b>Inhalation</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Use appropriate respiratory protection where atmosphere exceeds recommended limits.
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<b>Hand</b>	Use chemical resistant gloves appropriate to conditions of use. Wear heat protective gloves and clothing if there is a potential for contact with heated material.
<b>Eyes</b>	Dust service goggles should be worn to prevent mechanical injury or other irritation to eyes due to airborne particles, which may result from handling this product. Safety glasses are required as minimum requirements. Wear full-face shield during thermal processing if contact with molten material is likely.
<b>Skin</b>	Use protective clothing such as long sleeves or a lab coat should be worn.
<b>Environmental exposure controls</b>	Environmental exposure controls should be in accordance with applicable regional, national, and local laws and regulations.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state and Appearance</b>	Solid	<b>Upper Flammable (explosion) Limit</b>	Not applicable
<b>Colour</b>	Translucent to white	<b>Explosive Properties</b>	Not applicable
<b>Odour</b>	Faint, mild hydrocarbon odour.	<b>Oxidizing Properties</b>	Not applicable
<b>Odour Threshold</b>	Not applicable	<b>Vapour Pressure</b>	Not applicable
<b>pH</b>	Not applicable	<b>Evaporation Rate</b>	Not applicable
<b>Boiling Point/Boiling Range</b>	Not applicable	<b>Relative Density at 15°C (water=1)</b>	0.949 – 0.953
<b>Melting Point</b>	>140 °C	<b>Solubility (Water)</b>	Insoluble in water
<b>Flash Point</b>	Not applicable	<b>Partition Coefficient Octanol/Water (Log Pow)</b>	Specific data not available.
<b>Auto-ignition</b>	>350°C	<b>Viscosity</b>	Not applicable
<b>Flammability classification</b>	Not Classified. Polymer will burn but does not easily ignite.	<b>Relative Vapour Density (air=1)</b>	Not applicable
<b>Lower Flammable (explosion) Limit</b>	Not applicable	<b>Evaporation</b>	Not applicable
		<b>Additional Physical and Chemical Properties</b>	/

### SECTION 10: STABILITY AND REACTIVITY

<b>Chemical Stability</b>	The product is stable.
<b>Conditions to Avoid</b>	Avoid contact with excessive heat, sparks or open flame.
<b>Substances to Avoid</b>	May react with strong oxidizing agents. Organic solvents, ether, gasoline, lubricating oils, chlorinated hydrocarbons and aromatic hydrocarbons may react with and degrade material.
<b>Decomposition Products</b>	Dependent on process conditions (temperature, pressure, time, O <sub>2</sub> ) and may emit various bloomers, waxes and oxygenated hydrocarbons as well as carbon dioxide, carbon monoxide and small amounts of other organic vapours (e.g. aldehydes, acrolein). Inhalation of these decomposition products may be hazardous.
<b>Hazardous Polymerization</b>	Hazardous polymerization not likely to occur
<b>Reactions with Air and Water</b>	Does not react with air, water or other common materials.
<b>Advice to prevent explosion</b>	Not explosive.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Acute Toxicity

Material is considered essentially inert and non-toxic. Exposures to high levels of dust or heated fumes may cause irritation and possible pulmonary edema. Contact with molten material may cause severe thermal burns.

#### Repeated Dose Toxicity

Rats inhaling polyethylene dust developed mild inflammatory changes in the lungs. Prolonged inhalation of thermal degradation products from polyethylene caused neurological effects in rats. Sub chronic, 50-90 day, feeding studies conducted on rats, dogs and swine showed no effects from dietary levels of 1-20% powdered and shredded polyethylene

#### Chronic Toxicity

**Carcinogenicity** Not a known carcinogen

**Mutagenic effects** Not a known mutagen

**Teratogenic effects** Not a known teratogen.

#### Special Remarks on Other Toxic Effects on Humans

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### SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity – Acute toxicity** No data available

**Mobility** If released into watercourses, most of product pellets float.

#### Persistence and Degradability

**Air** Do not evaporate. Product does not readily degrade. Product will slowly change in the presence of sunlight, but will not fully breakdown.

**Soil** Pellets are persistent in terrestrial systems. Product should be recovered from land following spills.

**Water** Pellets are persistent in aquatic systems. Product should be recovered from water following spills.

**Bioaccumulation** Potential bioaccumulation of the product in environment is very low because of its structure. Pellets may accumulate in the digestive systems of birds and aquatic life, causing injury and possible death due to starvation

**Biodegradation** This material is not expected to be readily biodegradable. Under optimal oxidation conditions, >99% of product will remain intact after exposure to microbial actions.

**Environmental adverse effects** Ecotoxicity is expected to be minimal based on the low water solubility of polymers. Product is an essentially inert solid and considered non-toxic. It is stable (does not decompose) in landfills or in aquatic system.

### SECTION 13: DISPOSAL CONSIDERATIONS

#### Waste disposal

If discarded after use, this polymer does not meet the definitions of hazardous waste. Preferred disposal method for polymer in order of preference is: clean and reuse if possible; recover and resale through plastic recyclers or resin brokers; incinerate with waste heat recovery; and landfill. Reuse, recycling, storing, transportation and disposal must be in accordance with applicable national and local regulations. DO NOT ATTEMPT TO DISPOSE OF BY UNCONTROLLED INCINERATION. OPEN BURNING PLASTICS AT LANDFILLS IS NOT ACCEPTABLE.

### SECTION 14: TRANSPORT INFORMATION

UN broj	
H.I.N. (Kemlerov broj)	

#### Road (ADR) / Rail (RID) / Water (ADNR)

Proper Shipping Name	POLYETHYLENE, NOT REGULATED	Required label(s)
UN Number	None	/
Hazard class	Not controlled under ADR	
Transport category	None	
Packaging group	None	

#### Marine (IMO)

Proper Shipping Name	POLYETHYLENE, NOT REGULATED	Required label(s)
UN Number	None	/
IMDG class	Not controlled under IMDG	
EmS category	None	
Packaging group	None	

#### Air Transport (IATA/ICAO)

Proper Shipping Name	POLYETHYLENE, NOT REGULATED	Required label(s)
UN Number	None	/
ICAO/IATA class	Not controlled under ICAO/IATA	
Packaging group	None	

### SECTION 15: REGULATORY INFORMATION

<b>Regulatory information</b>	The SDS has been prepared according to EC REGULATION No. 1907/2006 REACH. The product has been classified according to EC REGULATIONS, No. 1272/2008/EC, No. 1999/45/EC and No. 67/548/EEC.
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### SECTION 16: OTHER INFORMATION

<b>Training advice</b>	Personnel handling the product need to be demonstrably with its properties, with health and environmental protection principles related to the product and first aid principles.
<b>Recommended uses</b>	<p>Ensure all national/local regulations are observed</p> <p>This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws. Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.</p> <p>Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained here, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use.</p> <p>Each individual should make a determination as to the suitability of the information for their particular purpose.</p>

#### List of telephone numbers of poison centres in the European Economic Area

<b>AUSTRIA</b> (Vienna Wien)	+43 1 40 400 2222
<b>BELGIUM</b> (Brussels Bruxelles)	+32 70 245 245
<b>BULGARIA</b> (Sofia)	+359 2 9154 409 / +359 887 435 325
<b>CZECH REPUBLIC</b> (Prague Praha)	+42 2 2491 9293 or +42 2 2491 5402
<b>DENMARK</b> (Copenhagen)	+45 35 31 54 04
<b>FINLAND</b> (Helsinki)	+358 9 471 977
<b>FRANCE</b> (Paris)	+33 1 40 05 48 48
<b>GERMANY</b> (Berlin)	+49 30 450 653565
<b>GREECE</b> (Athens Athinai)	+30 10 779 3777
<b>HUNGARY</b> (Budapest)	+36 80 20 11 99
<b>ICELAND</b> (Reykjavik)	+354 525 111, +354 543 2222
<b>IRELAND</b> (Dublin)	+353 1 8379964
<b>ITALY</b> (Rome)	+39 06 305 4343
<b>LATVIA</b> (Riga)	+371 704 2468
<b>LITHUANIA</b> (Vilnius)	+370 2 36 20 52, +370 2 36 20 92
<b>NETHERLANDS</b> (Bilthoven)	+31 30 274 88 88
<b>NORWAY</b> (Oslo)	+47 22 591300
<b>POLAND</b> (Gdansk)	+48 58 301 65 16 or +48 58 349 2831
<b>PORTUGAL</b> (Lisbon Lisboa)	808 250 143 (for use only in Portugal), +351 21 330 3284
<b>ROMANIA</b> (Bucharest)	+40 21 230 8000;
<b>SLOVAKIA</b> (Bratislava)	+421 2 54 77 4 166
<b>SLOVENIA</b> (Ljubljana)	+386 41 650 500
<b>SPAIN</b> (Barcelona)	+34 93 227 98 33 or +34 93 227 54 00 bleep 190
<b>SWEDEN</b> (Stockholm)	+46 8 33 12 31 (International) 112 (National)
<b>UNITED KINGDOM</b> (London)	0870 243 2241

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Key/Legend	
<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>ADNR</b>	European Agreement concerning the International Carriage of Dangerous Goods by inland Waterways
<b>ADR</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>CAS</b>	Chemical Abstract Service
<b>EU</b>	European Union
<b>IARC</b>	International Agency for Research on Cancer
<b>IATA</b>	International Air Transport Association
<b>ICAO</b>	International Civil Aviation Organization
<b>IMDG</b>	International Maritime Dangerous Goods
<b>IMO</b>	International Maritime Organization
<b>NFPA</b>	National Fire Protection Association
<b>NTP</b>	National Toxicology Programme
<b>OSHA</b>	Occupational Safety and Health Administration
<b>RID</b>	International Rule for Transport of Dangerous Substances by Railway
<b>TWA</b>	Time Weighted Averages

*This information applies to the PRODUCT AS SUCH and conforming to specifications of „HIP- Petrohemija“ Pancevo. In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear.*

*The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely.*

*However, the revision of some data is in progress. Users are advised of possible additional hazards when the product is used in applications for which it was not intended.*

*This sheet shall only be used and reproduced for prevention and security purposes.*

*The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive.*

*It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product.*

*It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product. (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.*