

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form	: Substance
Trade name	: PROPYLENE
Chemical name	: Propylene
CAS No	: 115-07-1
EC No	: 204-062-1
Index no	: 601-011-00-9
REACH No	: 01-2119447103-50-0094
Formula	: C <sub>3</sub> H <sub>6</sub>
Synonyms	: Propene / 1-Propene / 1-Propylene / Methylene / Methylene
Product group	: Trade product

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Main use category	: Industrial/Professional use
Use of the substance	: The raw material for the chemical and petrochemical manufacturing, production of polypropylene, propylene copolymers.

**1.2.2. Uses advised against**

\* See Section 15.1, REACH Annex XVII - Restriction

**1.3. Details of the supplier of the safety data sheet****1.3.1. Manufacturer**

HIP-Petrohemija a.d. Pancevo	Tel: + 381 (0) 13 307 000
Spoljnostarcevacka 82	Fax: + 381 (0) 13 310 207
26000 Pancevo	E-mail (person responsible for the SDS):
Republic of Serbia	<a href="mailto:ivana.kosovic@hip-petrohemija.rs">ivana.kosovic@hip-petrohemija.rs</a>
<a href="http://www.hip-petrohemija.com">www.hip-petrohemija.com</a>	

**1.3.2. Only Representative**

REACH Law Ltd.
Polaris Business Park
Vänrikinkuja 3 / 02600 Espoo
Finland
E-mail: <a href="mailto:SDS@reachlaw.fi">SDS@reachlaw.fi</a>
<a href="http://www.reachlaw.fi">www.reachlaw.fi</a>

**1.4. Emergency telephone number**

Poisoning Control Centre	: + 381 (0) 11 266 11 22 (00-24h)
	+ 381 (0) 11 266 27 55 (00-24h)
	+ 381 (0) 11 360 84 40 (00-24h)
* HIP-Petrohemija (available during office hours: Monday to Friday)	: + 381 (0) 13 30 77 77 (08-16h)
* European Emergency Number	: 112

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]

Physical hazards:	Flam. Gas 1	H220
	Press. Gas (Liq)	H280

Note: Full text of hazard classes and H-statements: see section 16

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms:



Signal word:

**DANGER**

Hazard statements:

H220 – Extremely flammable gas.  
H280 – Contains gas under pressure; may explode if heated.

Precautionary statements:

- **Prevention:** P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- **Response:** P377 – Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381 – Eliminate all ignition sources if safe to do so.
- **Storage:** P410 + P403 – Protect from sunlight. Store in a well-ventilated place.

### 2.3. Other hazards

Other information

: May displace oxygen and cause rapid suffocation.  
Contact with liquid may cause cold burns/frostbite.

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Substance name	Product identifier	% (V/V)	Classification according to Regulation (EC) No 1272/2008 [CLP]	Note
Propene / Propylene	(CAS No) 115-07-1 (EC No) 204-062-1 (Index No) 601-011-00-9 (REACH No) 01-2119447103-50-0094	93 - 96	Flam. Gas 1, H220 Press. Gas (Liq), H280	U
Propane	(CAS No) 74-98-6 (EC No) 200-827-9 (Index No) 601-003-00-5	4 - 7	Flam. Gas 1, H220 Press. Gas (Liq), H280	U
<p><i>Note U: When put on the market gases have to be classified as "Gases under pressure", in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.</i></p> <p><i>Note: Full text of hazard classes and H-statements: see section 16</i></p>				

### 3.2. Mixture

Not applicable.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general

: Extremely flammable liquefied gas. An asphyxiant at high concentrations oxygen depletion can be fatal. May cause frostbite. May cause anesthetic effects. May cause dizziness and drowsiness. Take care to self-protect by avoiding becoming contaminated - use the recommended PPE and air supplied breathing apparatus where high concentrations are possible.

First-aid measures after inhalation

: Exposure to high concentrations may cause asphyxiation and the victim may be unaware. Remove victim to uncontaminated area. Keep victim warm and at rest. Do not leave the victim unattended. Seek immediate medical attention. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may



<b>First-aid measures after skin contact</b>	: give oxygen or assisted ventilation. If unconscious, place in recovery position. In the event of cardiac arrest, no pulse, apply cardiopulmonary resuscitation. : Liquid contact may cause frostbite. Do not remove clothing that adheres due to freezing. Immediately warm frostbite area with warm water not to exceed 41°C-46°C, continue for at least 15 minutes. Water temperature should be tolerable to normal skin. DO NOT USE HOT WATER. Maintain skin warming for at least 15 minutes or until normal coloring and sensation have returned to the affected area. If warm water is not available, gently wrap affected parts in blankets. In case of massive exposure, remove clothing while showering with warm water. If there are signs of frostbite, (blanching or redness of skin or burning or tingling sensation), seek medical attention.
<b>First-aid measures after eye contact</b>	: Remove contact lenses, if any. Flush eyes with water thoroughly and continuously for at least 15 minutes. Keep eye wide open while rinsing. If there are signs of irritation, pain, swelling, lachrimation or other symptoms consult an ophthalmologist and seek for advice on further treatment.
<b>First-aid measures after ingestion</b>	: Ingestion is not considered a likely route of exposure - frostbite to the lips and mouth may occur if in contact with the liquid.
<b>Advice for a doctor</b>	: Provide oxygen. Treat symptomatically.

#### 4.2. Most important symptoms and effects, both acute and delayed

<b>Following inhalation</b>	: In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.
<b>Following skin contact</b>	: Cold burns/frostbite. Can cause allergic reaction on skin.
<b>After eye contact</b>	: Causes eye irritation: redness and swelling.
<b>After ingestion</b>	: Not applicable.
<b>Additional symptoms and effects</b>	: See Section 11, Toxicological information.

#### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Immediate medical attention</b>	: In case of any unwanted reaction or inconvenience, call Poison Control Centre or a doctor and seek medical attention. See Subsection 1.4, Emergency telephone number.
------------------------------------	--

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	: LARGE FIRE: Use water spray or fog to control fire fumes. DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED. SMALL FIRE: Dry powder. Carbon dioxide. Dry sand or fire fighting foam.
<b>Unsuitable extinguishing media</b>	: DO NOT use direct water jet.

#### 5.2. Special hazards arising from the substance or mixture

<b>Fire hazard</b>	: If possible, stop the flow of gas. If the flow cannot be stopped allow the fire to burn out, whilst cooling containers and surroundings with a water spray. Vapors from liquified gas are initially heavier than air and spread along ground. May accumulate in confined areas (basement, tanks). May travel to source of ignition and flash back. Do not extinguish the fire until supply is shut off as otherwise an explosive-ignition may occur. If the fire is extinguished and the flow of gas continues, use increased ventilation to prevent build-up of explosive atmosphere. Ventilation fans must be explosion proof. Isolate spill or leak area for at least 100 meters in all directions. Use water spray to cool surrounding containers. As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.
<b>Explosion hazard</b>	: Cylinders or other containment vessels may explode under fire conditions - use water spray to cool unopened containers. Do not allow run-off from fire fighting to enter drains or water courses - may cause explosion hazard in drains and may reignite.
<b>Hazardous combustion products</b>	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

#### 5.3. Advice for firefighters

<b>Special protective equipment for fire-fighters</b>	: Leave only the strictly necessary parties. If it is possible not to expose to risk move containers (tanks) from the zone covered by fire. Fight fire from maximum distance or use the remote handle or automatic sprinklers. Discontinue immediately put out
---	--

the fire if it is ahead of the fire, leak or change in color of the reservoir. Avoid inhalation of smoke and products of combustion. Cool tanks, cooling system, and after fighting the fire. Ensure that water used for extinguishing the fire gets into the canals, drains, sewers, or to another of the limited space, the space under the ground and waterways.

**Special protective equipment for fire-fighters**

: Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

See Section 6, *Accidental release measures*.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

: Immediately evacuate all personnel from danger area. Prohibit access to the accident zone until the rehabilitation is completed. Untrained staff must not take any action.

**For emergency personnel**

: Wear suitable protective equipment and clothing during cleaning up. Remove persons without appropriate protective equipment from the scene of the accident. Avoid breathing vapours. Ensure adequate ventilation and absence of sources of ignition. Beware of accumulation of vapours in low areas or contained areas, where explosive concentrations may occur.

Flammable gas may spread from leak. Before entering area, especially confined areas, check atmosphere with an appropriate device. Wear personal protective equipment, including self contained breathing apparatus, unless the atmosphere is proved to be safe.

Remove all sources of ignition if without risk. Reduce vapors with fog or fine water spray. Ventilate area or move cylinder to a well-ventilated area.

#### 6.2. Environmental precautions

**Land spillage**

: Prevent further leakage or spillage if safe to do so. Prevent waste from contaminating the surrounding environment. Discard any product, residue, disposable container, or liner in an environmentally acceptable manner, in full compliance with federal, state, and local regulations.

**Spillages in water or at sea**

: Prevent further leakage or spillage if safe to do so. Do not discharge into drains/surface waters/groundwater. If the spillage contaminates rivers, lakes or drains inform respective authorities.

#### 6.3. Methods and material for containment and cleaning up

**Precaution methods**

: Stay upwind. Keep area evacuated and free from ignition sources until any spilled liquid has evaporated.

**Methods for containment**

: Contain spillage - ventilate area and allow to evaporate.

**Methods for cleaning up**

: Spillages of liquid product will create a fire hazard and form an explosive atmosphere. Avoid direct contact with released material. Ensure adequate ventilation, especially in confined areas.

#### 6.4. Reference to other sections

See Section 7, *Handling and storage*. See Subsection 8.2, *Exposure controls*. See Section 13, *Disposal considerations*.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Precautions for safe handling**

: Only experienced and properly instructed persons should handle gases under pressure. The substance must be handled in accordance with good industrial hygiene and safety procedures. Ensure that all relevant regulations regarding explosive atmospheres, handling and storage facilities of flammable products are followed. Handle and open container with care in a well-ventilated area. Avoid overfilling. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Do NOT use compressed air for filling, discharging or handling operations. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge. If positive displacement pumps are used, these must be fitted with a non-integral pressure relief valve. Use explosion-proof electrical/ventilating/lighting and other equipment. Consider the use of only non-sparking tools. Ensure equipment is adequately earthed. Purge air from system before introducing gas. Keep away from all sources of ignition (spark or flame), oxidising agents, chlorine and hydrogen chloride or

hydrogen fluoride. Smoking, eating and drinking should be prohibited. Assess the risk of a potentially explosive atmosphere and the need for explosion-proof equipment. Ensure the complete gas system has been (or is regularly) checked for leaks before use. Use piping and equipment designed to withstand the pressures to be encountered. Use a check valve or other protective device to prevent reverse flow. Cleaning, inspection and maintenance of the internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Do not pressurise, cut, weld, braze, solder, drill, or grind on containers. Dispose of rinse water in accordance with local and national regulations. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

### Hygiene measures

: Wear appropriate personal protective equipment. Avoid prolonged exposure. Avoid inhalation. Avoid all sources of ignition: heat, sparks, open flame. Avoid contact with the skin, eyes and clothing. Wash your hands and exposed parts of body thoroughly with soap and water after work. Take off contaminated clothing. Do not wear contaminated clothing, shoes or protective equipment in the catering area.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Safe storage

: To stored only in a dike (bunded), supplied cylinders or approved vessels. Keep container tightly closed. Take precautionary measures against static discharges. No smoking. Cylinders should be secured vertical - and only transported in a secure position in a well ventilated vehicle or hand truck. Cylinders which have been opened must be carefully resealed and kept upright. Vapour space above stored liquid may be flammable/explosive unless blanketed with inert gas. Storage installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills.

#### Incompatibilities

: Store in well-ventilated place away from direct sunlight, flames, ignition sources and other sources of heat.

### 7.3. Specific end use(s)

None.

See Subsection 7.1, Precautions for safe handling.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure limit values (Workplace Exposure Limits)

Propylene (115-07-1)		
Belgium	Limit value (mg/m <sup>3</sup> )	875 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	500 ppm
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	172 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	100 ppm
Finland	HTP-arvo (8h) (ppm)	500 ppm
Ireland	OEL (8 hours ref) (ppm)	500 ppm (gaseous)
Ireland	OEL (15 min ref) (ppm)	1500 ppm (calculated-gaseous)
Latvia	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Lithuania	IPRV (mg/m <sup>3</sup> )	900 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	500 ppm
Poland	NDS (mg/m <sup>3</sup> )	2000 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	8600 mg/m <sup>3</sup>
Portugal	OEL TWA (ppm)	500 ppm
Spain	VLA-ED (ppm)	500 ppm
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	900 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	500 ppm
Switzerland	VME (mg/m <sup>3</sup> )	17500 mg/m <sup>3</sup>
Switzerland	VME (ppm)	10000 ppm

*\*Directive 2009/161/EU*

**8.1.2 Relevant DNELs//PNECs threshold levels**

DNEL					
Used in	Chemical name CAS No	Exposure time	Efect	Route of exposure	Threshold level
Workers	Propylene 115-07-1	Acute	Local	Inhalation	860 mg/m <sup>3</sup>
		Acute	Local	Inhalation	860 mg/m <sup>3</sup>
Environmental values (PNEC)					
Environmental compartment			Threshold level		
Aqua (freshwater)			5,1 mg/l		
Aqua (marine water)			0,26 mg/l		

**8.2. Exposure controls**

<b>Appropriate engineering controls</b>	: Ensure adequate ventilation.
<b>Hand protection</b>	: Wear protective gloves.
<b>Eye protection</b>	: Chemical goggles or safety glasses.
<b>Respiratory protection</b>	: In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazard protection</b>	: Wear thermal protective clothing, when necessary.
<b>Environmental exposure controls</b>	: Prevent releases. Ensure all national/local regulations are observed.
<b>Other information</b>	: Avoid all unnecessary exposure. Do not eat, drink or smoke when using this product.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	
Physical state	: Gas
Form	: Compressed liquefied gas.
Colour	: Colourless
<b>Odour</b>	: Faint odor, sweet odor.
* <b>Odour threshold</b>	: 20 - 80 ppm
<b>pH</b>	: Not applicable.
<b>Molecular weight</b>	: 42,08 g/mol
<b>Melting point / Freezing point</b>	: - 185,25°C
<b>Boiling point</b>	: - 47,7°C
<b>Flash point</b>	: - 107,8°C
<b>Evaporation rate</b>	: Not applicable for gases.
<b>Flammability (gas)</b>	: Extremely flammable.
<b>Flammability range</b>	
Flammability limit- lower	: 2 vol %
Flammability limit - upper	: 11,1 vol %
<b>Critical temperature</b>	: 91,8°C
<b>Auto-ignition temperature</b>	: 455°C
<b>Critical pressure</b>	: No data available.
<b>Relative density, gas (Air=1):</b>	: 1,5
<b>Relative density, liquid (Water=1)</b>	: 0,6
<b>Solubility in water</b>	: 384 mg/l
<b>Vapour pressure at 21,1°C</b>	: 10,2 bar
<b>Partition coefficient (n-octanol/water)</b>	: 1,77
<b>Viscosity, kinematic</b>	: No data available.
<b>Viscosity, dynamic</b>	: 0,01 mPa.s
<b>Oxidising properties</b>	: Not applicable.
<b>Explosive limits</b>	: Not applicable.



LEL	: 1,9 - 5,3 vol %
UEL	: 8,5 - 15 vol %

**9.2. Other information**

Gas group	: Liquefied gas.
Additional information	: Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Extremely flammable liquefied gas. Contains gas under pressure. May explode if heated. Unreactive under normal conditions of storage and use.

**10.2. Chemical stability**

Stable under normal conditions of storage and use.  
*See Section 7, Handling and storage.*

**10.3. Possibility of hazardous reactions**

No hazardous reactions if stored and handled as prescribed/indicated. Can form explosive mixture with air. May react violently with oxidants.

**10.4. Conditions to avoid**

Avoid exposure to air. Keep away from heat, sparks, open flames. No smoking.  
*See Section 7, Handling and storage. Izbegavati izlaganje vazduhu.*

**10.5. Incompatible materials**

Avoid contact with strong oxidizing agents, acids, halogens.  
*See Section 7, Handling and storage.*

**10.6. Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Incomplete combustion may form carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).  
*See Section 5.2, Special hazards arising from the substance or mixture.*

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

Acute toxicity	: Not classified. Based on available data, the classification criteria are not met.
Skin corrosion/irritation	: Not classified. Based on available data, the classification criteria are not met. pH: Not applicable.
Serious eye damage/irritation	: Not classified. Based on available data, the classification criteria are not met. pH: Not applicable.
Respiratory or skin sensitisation	: Not classified. Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Not classified. Based on available data, the classification criteria are not met.
Carcinogenicity	: Not classified. Based on available data, the classification criteria are not met.
Reproductive toxicity	: Not classified. Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: Not classified. Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Not classified. Based on available data, the classification criteria are not met.
Aspiration hazard	: Not classified. Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information****12.1. Toxicity**

<b>Propylene (115-07-1)</b>	
LC50 ribe 1	51,7 mg/l (96h)
EC50 Dafnije 1	28,2 mg/l (48h)
ErC50 (alge)	12,1 mg/l
NOEC hronično alge	4,5 mg/l

**12.2. Persistence and degradability**

<b>Propylene (115-07-1)</b>	
Persistence and degradability	The substance is biodegradable. Unlikely to persist.

**12.3. Bioaccumulative potential**

<b>Propylene (115-07-1)</b>	
Partition coefficient n-octanol/water	1,77

**12.4. Mobility in soil**

<b>Propylene (115-07-1)</b>	
Mobility in soil	No data available.
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

**12.5. Results of PBT and vPvB assessment**

<b>Propylene (115-07-1)</b>	
Results of PBT assessment	Substance does not meet the criteria for PBT or vPvB in accordance with REGULATION (EC) No 1907/2006, Annex XIII.

**12.6. Other adverse effects**

<b>Propylene (115-07-1)</b>	
Effect on ozone layer	None
Effect on the global warming	No known effects from this product

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Waste disposal recommendations**

: Do not discharge into areas where there is a risk of forming an explosive mixture with air. Waste gas should be flared through a suitable burner with flash back arrestor. Do not discharge into any place where its accumulation could be dangerous. Collect and dispose of waste product at an authorised disposal facility. Dispose of contaminated materials in accordance with current regulations.

**Additional information**

: Never use pressure to empty container. Do not burn, or use a cutting torch on, the empty drum. Do not puncture or incinerate. Delivery to an approved waste disposal company. Dispose of contaminated materials in accordance with current regulations.

**List of proposed waste codes/waste designations in accordance with EWC (2001/573/EC, 75/442/EEC, 91/689/EEC)**

: Classified as hazardous waste according to European Union regulations Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.



**SECTION 14: Transport information**In accordance with **ADR / IMDG / IATA / ADN/ RID:****14.1. UN number**

UN number : 1077

**14.2. UN proper shipping name**

Proper Shipping Name (ADR) : PROPYLENE  
Proper Shipping Name (IMDG) : PROPYLENE  
Proper Shipping Name (IATA) : Propylene  
Proper Shipping Name (ADN) : PROPYLENE  
Proper Shipping Name (RID) : PROPYLENE  
Transport document description (ADR) : UN 1077 PROPYLENE, 2.1, (B/D)  
Transport document description (IMDG) : UN 1077 PROPYLENE, 2.1  
Transport document description (IATA) : UN 1077 Propylene, 2.1  
Transport document description (ADN) : UN 1077 PROPYLENE, 2.1  
Transport document description (RID) : UN 1077 PROPYLENE, 2.1

**14.3. Transport hazard class(es)**

Transport hazard class(es) : 2  
Danger labels : 2.1

**14.4. Packing group**

Packing group : Not applicable.

**14.5. Environmental hazards**

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available.

**14.6. Special precautions for user****Overland transport**

Classification code (ADR) : 2F  
Special Provisions : 662  
Limited quantities (ADR) : 0  
Excepted quantities (ADR) : E0  
Packing instructions (ADR) : P200  
Mixed packing provisions (ADR) : MP9  
Portable tank and bulk container instructions (ADR) : (M), T50  
Tank code (ADR) : PxBN(M)  
Tank special provisions (ADR) : TA4, TT9  
Vehicle for tank carriage : FL  
Transport category (ADR) : 2  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV10, CV36  
Special provisions for carriage - Operation (ADR) : S2, S20  
Hazard identification number : 23  
Tunnel restriction code : B/D  
EAC code : 2YE

**Transport by sea**

Limited quantities (IMDG) : 0



Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P200
Tank instructions (IMDG)	: T50
EmS-No. (Fire)	: F-D
EmS-No. (Spillage)	: S-U
Stowage category (IMDG)	: E
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Flammable hydrocarbon gas. Explosive limits: 2 % to 11,1%. Heavier than air.

**Air transport**

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: 200
CAO max net quantity (IATA)	: 150 kg
Special provisions (IATA)	: A1
ERG code (IATA)	: 10L

**Inland waterway transport**

Classification code (ADN)	: 2F
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

**Rail transport**

Classification code (RID)	: 2F
Special provisions (RID)	: 662
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P200
Mixed packing provisions (RID)	: MP9
Portable tank and bulk container instructions (RID)	: T50(M)
Tank codes for RID tanks (RID)	: PxBN(M)
Special provisions for RID tanks (RID)	: TU38, TE22, TA4, TT9, TM6
Transport category (RID)	: 2
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW10, CW36
Colis express (express parcels) (RID)	: CE3
Hazard identification number (RID)	: 23

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

- According to Annex XVII of the REACH Regulation (EC) No 1907/2006, Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: **Listed**.

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008.

PROPYLENE - Propene



- According to Article 59(10) of the REACH Regulation (EC) No 1907/2006, Candidate List of SVHC for Authorisation: **Not listed**.
- According to Annex XIV List of the REACH Regulation (EC) No 1907/2006, List of substances subject to authorisation: **Not listed**.
- According to Annex I DIRECTIVE 2012/18/EU, Dangerous substances covered by the hazard categories: **Listed**.

Part I	List of Categories of dangerous substances			
Nº	Hazard categories in accordance with Regulation (EC) No 1272/2008	Qualifying quantity (tonnes) of dangerous substances for the application of lower and upper-tier requirements		Section
8	Propylene / Flammable gases, Category 1 or 2	10	50	P2

## 15.2. Chemical safety assessment

Chemical safety assessment has been carried out. In accordance with the Chemical Safety Report exposure scenario is not required.

## SECTION 16: Other information

- Indication of changes** : Asterisk in the left hand margin indicate an amendment from the previous version.
- Data sources** : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- Training advice** : THE PRODUCT IS RESTRICTED TO PROFESSIONAL USAGE ONLY and must be handled in accordance with good industrial hygiene and safety procedures. Ensure that all relevant regulations regarding explosive atmospheres, handling and storage facilities of flammable products are followed. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

### Relevant hazard classes and H-statements not written out in full under Sections 2 and 3

- Flam. Gas 1 : Flammable gases, Category 1
- Press. Gas (Liq) : Gases under pressure (Liquefied gas)
- H220 : Extremely flammable gas.
- H280 : Contains gas under pressure; may explode if heated.

### Abbreviations and acronyms:

- SDS : Safety Data Sheet
- UN : United Nations
- EU : European Union
- EC : European Community
- EEC : European Economic Community
- CAS No : Chemical Abstract Service number
- EC No (EINECS) : European Inventory of Existing Commercial Chemical Substances (European Chemical number: EINECS, ELINCS or NLP)
- ELINCS : European List of Notified Chemical Substances
- NLP : No-Longer Polymer
- CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
- ECHA : European Chemicals Agency
- REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
- PBT : Persisten, Bioaccumulative and Toxic substance/mixture
- vPvB : Very Persisten and very Bioaccumulative substance/mixture
- V/V : percent per volume
- LC50 : Lethal concentration, 50 percent
- LD50 : Lethal dose, 50 percent
- EC50 : Effective concentration, 50 percent
- ErC50 : EC50 in terms of reduction of growth rate
- NOEC : No observed effect concentration
- DNEL : Derived No Effect Level



PETROHEMIJA

# PROPYLENE

## Safety Data Sheet

according to Regulation (EU) No 2015/830

Revision date: 13.05.2021

Supersedes: 19.02.2020

Version: 6.0

PNEC	: Predicted No Effect Concentration
ADR	: European Agreement concerning the International Carriage of Dangerous Goods by Road
RID	: European Agreement concerning the International Rule for Transport of Dangerous Goods by Rail
ADN	: European Agreement concerning the International Carriage of Dangerous Goods by inland Waterways
IMDG	: International Maritime Dangerous Goods
IATA	: International Air Transport Association
MARPOL	: International Convention for the Prevention of Marine Pollution from Ships
IBC	: International Bulk Chemical Code

*The information and recommendations provide in this document are based on our current knowledge, information and experience at the date of its publication, and their purpose is to present prevention and safety measures in relation to this product. The information given is designed only as a guidance for safe handling, use, processing, storage, transport and disposal. All given information refer only to the product in the form it is supplied. It is the user's responsibility to satisfy itself that the product is suitable for the intended use.*

*Users are obliged to have their activities harmonized with national, regional and local regulations, which are subject to modifications, and may differ depending on location/state. Users are responsible for handling, storage and manipulation in accordance with effective laws and regulations as required to provide health and safety at work and environmental protection. Since the use of this information and the conditions of use are not within the control of HIP Petrohemija, it is the user's obligation to determine the conditions of safe use of the product.*

*This version supersedes and replaces all previous versions.*