MSDS-02: ATACTIC POLYPROPYLENE – MATERIAL SAFETY DATA SHEET

Acoordind with Regulation (CE) no.1907/2006 regarding registration, evaluation, authorisation and restriction of chemicals (REACH), amended and supplemented by Regulation (EU) No. 453/2010 and Regulation (EU) No. 830/2015.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE /MIXTURE AND COMPANY

1.1. Product identifier	Atactic Polypropylene (APP) (APP, homopolymer APP, 1- Atactic Propylene Homopolymer, Polypropylene Resin, Wax Polipropylene, Amorphous Polypropylene APP)
CAS No.	9003-07-0
ECHA No.	NA - see art .2(9) Regulation No.1907/2006
1.2. Relevant identified uses of the substance or mixture and uses advised against	Industrial use – for improving the quality of bitumen in order to obtain waterproof materials, textile substrates, plasticizers.

1.3. Details of the supplier of the safty data sheet

Producer	**ROMPETROL RAFINARE SA** ADRESS: B-dul Navodari, Nr. 215, Pavilion Administrativ, 905700 Navodari, Jud. Constanta, ROMANIA Telefon:+ (40) 241 507 090 Fax : + (40) 241 506 918 office.rafinare@rompetrol.com
1.4 . Emergency thelephone number	+ (40)-241-507 090 (between hours 08:00-16:00) + (40)-241-506 040 (between hours 16:00-08:00)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Clasification of the substance or mixture	
2.1.1. Clasification according with Regulation (EC) No.1272/2008	Unclasified
2.1.2. Additional Information	
Phisical-Chemical hazards	Potentially flammable product due to the volatile content; inside enclosed areas, vapour accumulations may occur, especially hexane a dangerous product which in mixture with air may form explosive mixtures.
Human healt hazard	When is initialy packed and in production for applications purpose the Atactic Polypropylene is used in molten state, which involve handling caution because it may produce skin thermal burns in case of contact. In solid state spilled material may present a slipping hazard. During production processes, by heating, may release vapours which irritate the eyes, the skin, the breathing tract and the central nervous system.
Enviroment hazards	It is harmful for the aquatic organisms and may induce long term adverse effects on aquatic environment.

2.2. Label elements
According to Regulation 1272/2008
Pictogram

Signal word	DANGER
Hazard statements (H)	H 228: Flammable solid
Precautionary statements (P) Prevention	P 210: Keep away from heat/sparks/open flames /hot surface P240: Ground/bond the box and receiving equipment. P241: Use explosion proff electrical / ventilating / lighting / equipment. P280: Wear protective gloves / protective clothing / eye protection / face protection.
Precautionary statements (P) Intervention	P370 +378: In case of fire use powder, CO2, sprayed water.
Precautionary statements (P) Storage	-
Precautionary statements (P) Disposal	-
2.3. Other hazards	Restricted to professional users.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

No.	Substances / concentration		Identification data			
	Chemical name	Concentration (%m/m)	Registration number	CAS No.	EC No.	Index
1	Atactic Polypropylene	> 96	NA	9003-07-0	-	-
2	Volatiles (n-hexan)	< 4	-	110-54-3	203-777-6	601-037-00-0

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures
In solid state, in normal conditions, the product do not present human healt hazard.

Inhalation
In case of inhalation of product particles / dust or vapours which results during processing, remove casualty to fresh air. Get medical help if symptoms persist.

Eyes contact
Solid small particles may cause eyes irritation, due to the mechanical action. Molten state - process vapours may cause eyes irritation / redness. In this case, wash eyes with large amounts of water for at least 15 minutes and get the medical attention immediately.

Skin contact
The prolonged / repeted contact of the solid product with the skin can produce irritation and dermatitis. The contact with molten polymer causes thermal burns, get special medical attention immediately.

Ingestion
No probable way. There are no risks anticipated when small quantities are accidentally swallowed. Do not induce vomiting. Get medical attention.

4.2. Most important symptoms and effects, both acute and delayed	Vapors emitted during processing can cause irritation of the nose and airways. Excessive exposure to high concentrations can cause coughing and shortness of breath, headache and dizziness. Inhalation of hexane vapors for a longer period is affecting the central nervous system.
Inhalation	
Skin contact	The repeted / prolonged contact of the skin with the solide product can produce irritation and dermatitis.The contact with heat polymer or molten polymer causes thermal burns / serious injuries of the skin tissue and for this is necessary to get special medical attention.
Eyes contact	Solid particles / dust may cause eyes irritation; Splashing with molten polymer may produce eyes burnings / injuries and for this is necessary to get special medical attention.
Ingestion	No probable way - no possible adverse effects.
4.3.Indications of any immediate medical attention and special treatment needed	In case of doubt or if symptoms persist, consult a doctor.

SECTION 5: FIREFIGHTING MEASURES

Atactic Polypropylene is not an inflammable substance, but in contact with a flame it becomes soft, flows, ignites and burns until exhausting.

General recommendations: Remove staff from the area. Isolate fire area and deny / restricts access to persons who do not participate at intervention.

5.1. Extinguishing media

Suitable extinguishing media	Small fires: water, powder extinguisher, carbon dioxide Larges fires: large quantities of water spray.
Unsuitable extinguishing media	-
5.2. Special hazards arising from the substance or mixture	During burning, toxic compounds are eliminate – carbon oxide, carbon dioxide, oxidation organic compounds; the incomplete combustions are accompanied by emissions of dense black smoke. In case of molten polymer, the fire is possible to propagate.
5.3. Recommendations for fire fighters	Intervention equipment - Complete fire fighting clothing, self-contained breathing apparatus. If not possible, the fire will be extinguished from a safe distance or from a protected location. Cool the area with water curtain to locate the fire. To avoid reigniting, the product should be flooded with water. The water used to extinguish fires is contaminated with product / estinguish agents and this water should be routed to water treatment plants and not in streams or sewers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personnel precautions, Protection equipement and emergency procedures

6.1.1. For the staff that is not involved in emergency situations	Remove all sources of ignition in the area. All the people that do not participate in the decontamination of the area will be evacuated. Access in the area will be restricted. The movement will be done carefully because the spiled polymer can cause risk of slipping. Molten product present the risk of producing thermal burns on contact with skin and inhalation of vapours and smoke can lead to the irritation of airways.

6.1.2. For the staff that is involved in emergency situations

Minimum recommended protective equipment for intervention in case of a spill of solid polymer: protective clothing / shoes, gloves, protective shorts (protective mask, if is the case); in case of a spill of molten polymer, the protection equipment will include protective breathing mask.
Echipamentul minim de protectie pentru personalul care intervine in cazul producerii unei situatii de urgenta (incendiu) este mentionat in sectiunea 5.
Minimum protective equipment for the staff that intervenes in case of an emergency (fire) is outlined in section 5.

6.2. Environmental precautions

The spilled material won't be allowed to reach the sewers. In case this accidentally occurs, the relevant authorities will be notified.

6.3. Methods and material for fire isolation and clean up

For solid state - clean contaminated area, put the material in dry labeled containers. For disposal see section 13. For molten polymer - turn off / remove all sources of ignition. Vent the area. After solidification, the material is load in suitable containers for use or disposal.

6.4. References to other sections

See section 5 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

During the work, avoid vapors inhalations, contact of the product with eyes, skin and clothes; a good ventilation of the working area will be insured.

7.2. Condition for safe storage, including any incompatibilities.

The products shall be stored away from heat or ignition sources (sparks, flames or hot surfaces) and away from incompatible substances. If it is stored near heat sources, the material may soften, making it awkward to handle. When stored in solid form, the product will be kept in closed containers (to avoid contamination), on open platforms, but covered.

If storage is indoors, it should be used local exhaust ventilation (natural and / or mechanical).
When kept in molten state, inert gas blanketing is necessary to avoid material degradation. If molten material is loaded into wet containers, water vapors are generated. In extreme cases, the released water vapours can splash the molten material.
Inside storing and handling areas - eating, drinking and smoking are not allowed.

Will be followed the basic rules of personal hygiene at working place - will not be consumed food / drink in the work area, washing the hands after handling the product, the personal clothes will be kept separated from protective and working equipment and periodicaly, will be insured, the decontamination of the working equipment. No smoking in working areas.

In case of accidental release during handling and storage, see point 6.

7.3. Final specific uses

Production of wax products by heat-treating. .

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Values for occupational exposure:
hexane (According to Governamental Regulation HG 1218/2006):
8 hours: 72 mg/Nm^3 (8 hours)
15 minutes : - not regulated
Biological limit values: - NA
Recommended monitoring procedures: monitoring of chemical hazards in the workplace.

DNEL and PNEC Value: NA

8.2. Exposure controls

Risk management measures for health: This product is used in molten state. To prevent accidents, it is necessary to wear protective gear (see below). For the emergency situations, the work area will provide eye wash stations and showers.
Periodic medical examination of workers, especially to those with exposure to emissions of volatile organic compounds.

8.2.1. Appropriate technical controls

Providing general and local exhaust ventilation systems and water sources near working areas which involve molten polymer at high temperatures. Also, it is recommend the use of fixed / mobile systems for detection of gas / explosive mixtures.

8.2.2. Individual protective measures, like individual protective equipment

Protection of the eyes and hands

Glasses / protection shield for working with molten polymer; Avoid wearing contact lenses at work. Thermoresitent gloves.

Protection of the skin and body

In case of processing or handling of the polymer at high temperature or molten, the personnel will wear cotton clothing, boots and apron which are thermoresistent.

Respiratory protection

Volatile concentration in the area has to be kept below allowed limits. In natural ventilated areas and for a solid product, no special measures are required. When heating the polymer, will be provided general and local ventilation systems (with exhaustor) and means for protecting employees - mask with filter cartridge / respiratory protective device.

8.2.3. Environmental exposure control

Information regarding environmental protection: It is not biodegradable - is expected to be found in soil and in aquatic emvironment floats.
Measures for environmental risk management: Do not discharge the product into the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information regarding basic physical and chemical properties	
a) Appearance	Physical Condition: Solid: waxy solid mass, sticky. Colour: – Variabile: white -yellowish-gray-brown
b) Odour	Hydrocarbons proper odor
c) Melting Temperature	90 - 150 °C
d) Autoignition Temperature	undetermined
e) Density	0.90 - 0.94 g/cm^3
f) Water solubility	No (solvents soluble)
g) Time of ignition	Approx. 30 sec
h) Inflamability	50 - 55ºC
i) Explosive properties in air (for n-hexan):	1.1 – 7.5 % v/v

9.2. Other information

Not available / applicable data on other characteristics

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Atactic polypropylene is stable under normal conditions.

10.2. Chemical stability

Do not present hazard of chemical reactions in normal conditions of temperature and pressure. Not corrosive.

10.3. Dangerous reaction possibilities	In normal conditions do not present hazard of polymerise/decomposition. At high tempertures may be generated voapours (n-hexane), which indoors present the hazard of making explosive mixtures with air.
10.4. Conditions to avoid	Excessive temperatures or open flames, processing in closed or unventilated areas, extended exposure to direct sunlight.
10.5. Incompatible materials	Strong oxidizing agents (hot nitric acid, peroxides, halogens) and hydrocarbons (benzene, gasoline, petroleum ether) and chlorinated hydrocarbons, which soften the product.
10.6. Dangerous decomposition compounds	In case of burns, carbon oxide and bioxide, oxidation organic compound vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects	Not available / applicable data.
a) Acute Toxicity	Acute / prolonged inhalation of organic volatil compounds could cause an moderate respiratory irritation; in case of solid product - may presents an aspiration hazard due to clogging of airways;
b) Skin irritation / corrosion	Skin moderate irritation by prolonged exposure to the solid product; Contact with molten polymer produce burns;
c) Serious eye damage / eye irritation	The solid state product may cause eye irritation; the molten product may produce irreversible eyes injuryes / irreversible eyes damage.
d)CMR (carcinogenicity, mutagenicity, reproductive toxicity)	Not available data regarding atactic polypropylene. n-hexane is classified as toxic for reproduction (cap.3), may impair fertility.
e)Aspiration hazard	The solid state product may presents an aspiration hazard due to clogging of airways

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity	Atactic polypropylene is practically insoluble in water (the product will float on water) and has no effect on the aquatic environment. Product solid particles may be harmful for birds and fish if swallowed. Hexane content of the product improves the harmful to aquatic organisms, with the risk of long-term adverse effects in the aquatic environment.
12.2. Persistence and degradability	The inert product it is found in soil and is not biodegradable.
12.3. Bioaccumulation potential	No data available. Partition coefficient n-octanol/water: No data available.
12.4. Soil mobility	Product doesn't migrate.
12.5. Result of PBT and vPvB evaluations	Product is not classified PBT or vPvB.
12.6. Other adverse effect	Not anticipated effects on biological processes.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

It is recommended that the waste APP to be:
- recyclated (by mechanical and chemical treatment)
- Incineration / coincineration in order to generate energy in plants that can take high thermal loads, in accordance with EU regulations / national and local regulations.
- The addition of other components involved consideration of their influence, based on related documents.

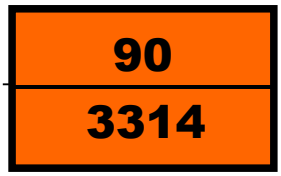
Waste APP can be eliminated in accordance with national regulations.

Recommended waste code : 07 02 13 plastic material waste

SECTION 14: TRANSPORT INFORMATION

14.1. ONU number	3314
14.2. ONU official name for shipment	PLASTIC MATERIALS FOR MOULDS
14.3. Transport hazard class (classes)	9
14.4. Packaging group	III
14.5. Environmental hazards	NO
14.6. Special precautions for users	
Hazard identification number	90
Labels	NO
Tunnel restriction code	D/E – Note: ADR request only

Fig.1



14.7. Bulk shipment, according with Annex II at MARPOL and IBC Code – not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Regulations/Legislation - specific for the substance or mixture in question in the field of security, health and environment

Is not specifically regulated in the field of security, health or environment.

Applicable legislation

- Regulation (EC)1272/2008 regarding classification, labelling and packaging of substances and mixtures (CLP)
- REACH Regulation no.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
- Law no 319/2006 health and safety at work
- HG 1218/2006 establish of the minimum requirement for safety and health at work to protect workers from risks related to chemical agents;
- Low no 211/2011 concerning waste regime

15.2. Chemical security evaluation

NA

SECTION 16: OTHER INFORMATION

16.1. Clear evidence of information having been added, deleted or revised

The entire Security Data Sheet has been revised in concordance with Regulation (EC) 1907/2006 changed and amended by Regulation (EU) 453/2010 and by Regulation (EU) 830/2015.

16.2. Legend of abbreviations and acronyms which can be used (but not mandatory) in this Security Data Sheet

CLP Regulations regarding Classification, Labelling and Packaging.
ADR: European treaty regarding international transportation of dangerous goods on roads

16.3. List of relevant hazard statements (H) and precautionary statements (P)

Hazard statements (H)	H 228: Flammable solid.
Precautionary statements (P)	P 210: Keep away from heat /sparks/open flmes /hot surfaces; P 240: Ground/bond container and receiving equipment; P 241: Use explosion proff electrical / ventilating / lighting / equipment. P 280 : Wear protective gloves / protective clothing / glasses for eye protection / face protection equipament. P370 +378: In case of fire use powder, CO2, sprayed water.
Recommendations for training of specialists	Training staff involved in handling / use / transport with this product safety data sheets.
Provider recommended restrictions for use	NA
16.4. Written references /sources	- International chemical safety data sheets - Technical data sheet - Regulation (EC)1272/2008 regarding classification, labeling and packaging of substances and mixtures that change and amending Directive 67/548/EC; - European Agreement concerning the international carriage of dangerous goods (ADR) - SC Rompetrol Refinare SA Specialized Internal Documents and Specialty Literature;

Note:

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The integrated quality-environment-health and safety management is certified by DNV-GL in accordance with standards:

- ISO 9001:2008
- ISO 14001:2004
- OHSAS 18001:2007

Testing Laboratory is accredited by RENAR in conformity with SR EN ISO/CEI 17025:2005.