 <p><b>PETROM</b> PETROQUÍMICA MOGI DAS CRUZES</p>	<b>MATERIAL SAFETY DATA SHEET</b>  <b>PHTHALIC ANHYDRIDE IN FLAKE</b>	<b>MSDS:</b>	<b>PET0001</b>
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## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 – Product identifier

Product name:	PHTHALIC ANHYDRIDE IN FLAKE.
Internal product code:	<b>N/A.</b>
EC No:	201-607-5
CAS No:	85-44-9
Registration number (REACH):	01-2119457017-41-0016

### 1.2 - Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	For industrial use only. Used in the production of plastics, resins, paints, pharmaceutical products and fungicides.
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### 1.3- Details of the supplier of the safety data sheet

Manufacturer/Supplier	<b>PETROM – Petroquímica Mogi das Cruzes S/A</b>
Street address/P.O.Box	<b>Rodovia Dom Paulo Rolim Loureiro, km 09, Vila Moraes –Mogi das Cruzes – SP – Brasil.</b>
Country ID / Postcode /Place:	<b>Brazil / 08766-500</b>
Telephone number	<b>+55 (11) 4798-7500/7600</b>
Website:	<b><a href="http://www.petrom.com.br">http://www.petrom.com.br</a></b>
Email	<b>petrom@petrom.com.br</b>

### 1.4 - Emergency telephone number


Opening hours	24 hours
Emergency Phone	<b>+55 (11) 4798-7500</b>

## SECTION 2: HAZARDS IDENTIFICATION

Hazard classification according to Regulation (EC) No. 1272/2008 [CLP]

### 2.1 Classification of the substance or mixture

Hazard Classification	Category
Acute toxicity - Oral	4
Acute toxicity - Inhalation	4
Skin Corrosion/irritation	2
Serious Eye Damage/Eye Irritation	1
Respiratory sensitization	1
Skin sensitization	1
Specific target organ toxicity (single exposure)	3

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## 2.2 – Label element



Hazard Pictograms

Signal Word

**DANGER**

Hazard Phrases

**H302** – Harmful if swallowed.  
**H332** – Harmful if inhaled.  
**H315** – Causes skin irritation.  
**H318** – Causes serious eye damage.  
**H334** – May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
**H317** – May cause an allergic skin reaction.  
**H335** – May cause respiratory irritation.

**Prevention:**

**P260** - Do not breathe dust/fume/gas/mist/vapors/spray.  
**P261** - Avoid breathing dust/fume/gas/mist/vapors/spray.  
**P264** - Wash hands thoroughly after handling.  
**P270** - Do not eat, drink or smoke when using this product.  
**P271** - Use only outdoors or in a well-ventilated area.  
**P272** - Contaminated work clothing should not be allowed out of the workplace.  
**P280** - Wear protective gloves/protective clothing/eye protection/face protection.  
**P284** - [In case of inadequate ventilation] Wear respiratory protection.

**Emergency Response:**

Hazard statements

**P301 + P312** - IF SWALLOWED: call a POISON CENTER/doctor /physician IF you feel unwell.  
**P301 + P330 + P331** – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
**P302 + P352** - IN CASE OF CONTACT WITH SKIN: Wash with plenty of soap and water.  
**P303 + P361 + P353** - IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].  
**P304 + P340** - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
**P305 + P351 + P338** - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.  
**P310** - Immediately call a POISON CENTER or doctor/physician.  
**P321** - Specific treatment (symptomatic) (see this label).  
**P330** - Rinse mouth.  
**P333 + P313** - IF SKIN irritation or rash occurs: Get medical advice/attention.  
**P342 + P311** - IF experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
**P362 + P364** - Take off contaminated clothing and wash it before reuse.  
**P363** - Wash contaminated clothing before reuse.

**Storage:**

**P403 + P233** - Store in a well-ventilated place. Keep container tightly closed.  
**P405** - Store locked up.


**Disposal:**

**P501**- Dispose of contents/container in appropriate locations for waste / final disposal (appropriate landfill accredited by competent bodies and/or with specialized companies for incineration or another destination in accordance with the municipal and state laws of the region).

Supplemental

Hazard information  
(EU):

Not applicable.

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### 2.3 - Other hazards

There are no other hazards.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**PHTHALIC ANHYDRIDE IN FLAKE is a SUBSTANCE.**

### 3.1 Substance

CAS No	<b>85-44-9</b>
EC No	<b>201-607-5</b>
Index No	-
REACH Registration No	<b>01-2119457017-41-0016</b>
% [weight]	99,5%
Substance name	Phthalic Anhydride.
Classification according to Regulation (EC) No 1278/2008 (CLP).	Acute toxicity – Oral – Category 4; Acute toxicity – Inhalation – Category 4; Skin Corrosion/irritation - Category 2; Serious Eye Damage/Eye Irritation – Category 1; Respiratory sensitization - Category 1; Skin sensitization – Category 1; Specific target organ toxicity (single exposure) - Category 3.
SCL,	
M-factor, ATE	--
Other ingredients	Does not show impurities that may contribute to danger.


### 3.2 Mixture

Not applicable

## SECTION 4: FIRST AID MEASURES

### 4.1 - Description of first aid measures

Following inhalation:	Move the exposed person to fresh air. If it is suspected that there is still smoke, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep the person warm and at rest. If not breathing, if breathing is irregular, or if breathing stops, provide artificial respiration or oxygen by trained personnel. It can be dangerous for the person providing care to perform mouth-to-mouth resuscitation. If unconscious, place in recovery position and seek medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of complaints or symptoms, avoid further exposure. Seek medical assistance immediately, taking this MSDS, the label and package leaflet of the product.
Following Skin contact:	Wash contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue rinsing for at least 10 minutes. In case of complaints or symptoms, avoid further exposure. Wash clothes before reuse. Clean shoes thoroughly before reuse. Preferably use an emergency shower. Seek medical assistance immediately, taking this MSDS, the label and package leaflet of the product.
Following eye contact:	Rinse affected eyes immediately for at least 15 minutes under running water with eyelids open. Remove contact lenses if present. Use preferably an eye washer. Seek medical assistance immediately, taking this MSDS, the label and package leaflet of the product.
Following ingestion:	Rinse mouth with water. Move the exposed person to fresh air. Keep the person warm and at rest. If material is swallowed and the exposed person is conscious, give small amounts of water to drink. Stop if the exposed person feels unwell, as vomiting can be

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dangerous. Do not induce vomiting unless instructed to do so by medical personnel. If vomiting occurs, the head must be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical attention immediately. Keep the airways open. Loosen tight clothing such as a collar, tie, belt, or waistband. Seek medical assistance immediately, taking this MSDS, the label and package leaflet of the product.

What actions should be avoided: Do not induce vomiting and do not administer anything orally if the person is unconscious.  
 Self-protection of the first aider: Avoid contact with the product while providing aid to the victim.

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

Adverse effects to human health: Harmful if ingested. May be harmful in contact with skin. Harmful if inhaled. Causes irritation to the skin. Causes severe ocular lesions. When inhaled can cause allergic symptoms, asthma or respiratory difficulty. May cause allergic reactions to the skin. May cause irritation to the airways. The symptoms include redness of the skin and eyes, pain, conjunctivitis and watery eyes. Cough, sore throat, wheezing, shortness of breath and burning sensation. Abdominal pain, vomiting and diarrhea.

#### 4.3- Most important symptoms and effects, both acute and delayed Adverse effects to human health

Notes to physician: Treat according to the symptoms (decontamination, vital functions), no specific antidote known. Prophylaxis of pulmonary edema. Medical monitoring for at least 24 hours. Symptomatic treatment must include, above all, supportive measures such as correcting hydroelectrolytic and metabolic disorders and respiratory failure.

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 - Extinguishing Media

Suitable extinguishing media: Product is not flammable. Use dry chemical powder, carbon dioxide, alcohol-resistant foam or water spray.  
 Insuitable extinguishing media: Water jet extinguishers should be avoided in order not to cause spreading of the product to other regions.

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

Special Procedures: Evacuate an 800-meter-radius area. Fire fight from a safe distance. Use full PPE and respiratory protection of autonomous type (SCBA) with positive pressure. Use levees to contain the water used in combat. Position yourself with your back to the wind. Use water mist to cool down equipment exposed in the vicinity of the fire.  
 Hazardous combustion products: Fire may produce asphyxiating gas from the phthalic anhydride. This product can accumulate static charges that can cause an electrical incendiary discharge. Combustion of the chemical product or its packaging may form irritating and toxic gases such as carbon monoxide and carbon dioxide.


#### 5.3 – Advice for firefighters

Respiratory protective equipment of autonomous type (SCBA) with positive pressure and full protective clothing. Containers and tanks involved in the fire must be cooled with water jets.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

6.1.1 - For non-emergency personnel: Use water repellent overall, safety goggles against splashes, closed shoes, and nitrile rubber gloves or PVC or other impermeable material. Respiratory protection must be performed depending on the concentrations present in the environment or the extension of the spillage/leakage, as such, opt for respirators with filter A - P2. Avoid contact of the product with skin, eyes and mucous membranes. Do not handle broken

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packages, unless properly protected with the use of personal protective equipment. Do not touch or walk over spilled product. Move away any ignition sources. Do not smoke. Stay away from low-lying areas, having the wind on your back.

Personal precautions: Use PPE, complete with suitable protective clothing, goggles against splashing, closed shoes, nitrile rubber gloves or PVC or other waterproof material. Use of respirators with filter A - P2 recommended.

6.1.2 - For emergency responders

Removal of ignition sources: Interrupt the power supply and disconnect sources of sparks. Remove from the site any material that may start a fire (ex.: diesel oil spill).

Dust Control: Cover with plastic tarp or apply water mist to prevent the spread of the material.

Prevention of inhalation and contact with the skin, mucous membranes and eyes: Use clothes and accessories as described above. Use eye protection.

## 6.2 – Environmental precautions

Precautions for the environment: Do not allow it to reach pipes or waterways. In case of pollution of rivers, lakes, or drainage for sewage, contact competent authorities in accordance with local laws.

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

Prevention of secondary hazards

Paved Floor: Use water mist or vapor suppressant foam to reduce the dispersion of vapors. Use natural barriers or containment of spillage. Collect the spilled product with the aid of a shovel and place in proper containers and remove them to a safe place. Soil: Remove the layers of contaminated soil until uncontaminated soil is reached, collect this material and place in a sealed container properly labeled; Water bodies: Immediately stop collection for human or animal consumption, contact the nearest environmental agency and the emergency center of the company, as the measures to be adopted depend on the proportion of the accident, the characteristics of the water resource in question and the quantity of the product involved. For final disposal, proceed according to Section 13 of this MSDS.

## 6.4- Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

## SECTION 7: HANDLING AND STORAGE


### 7.1- Precautions for safe handling:

Safe handling guidelines

Use the product following the recommendations of the manufacturer. Use PPE as described in Item 8. Avoid contact with skin, eyes and clothing. Keep people, especially children and pets away from the area of work. Do not come into direct contact with product. Keep product in its original container. Keep any leftovers of products in their original packages properly closed. Handle the product with appropriate local exhaust ventilation or in a well ventilated area, in open ambients, handle it downwind. In the case of intoxication symptoms, stop work immediately and proceed as described in item 4 of this sheet.

Exposure prevention for workers

Manipulate in a ventilated area or with general system of local ventilation. Use PPE as described in Item 8. Do not eat, drink or smoke when handling the product. Wash hands before eating, drinking, smoking or using the toilet. Upon opening the package do it so as to avoid spillage. Do not use individual protection equipment damaged and /or defective. Do not unclog nozzles, orifices, pipes and valves with the mouth. Do not manipulate and/or carry damaged packages. Adopt good personal hygiene practices. Do not store or consume food in the workplace. Contaminated clothing must be changed

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and washed before reuse. Remove clothing and contaminated protective equipment before entering eating areas.

Technical measures appropriate to the worker

Appropriate Wash contaminated clothing separately before reuse, avoiding contact with other utensils for personal use. Wash hands and face during breaks and at the end of working hours.

Inappropriate: Do not wash contaminated clothes together with other pieces of clothing or utensils for personal use.

### 7.2 - Conditions for safe storage, including any incompatibility

Adequate

Store in a hermetically closed container in a dry, cool, well-ventilated place away from incompatible materials. Carefully close open containers and store in a vertical position to prevent leaks. Always keep in containers which correspond to the original packaging. Observe the indications contained on the label. Protect from direct action of the sun. Keep away from sources of ignition. Keep away from heat. Do not eat, drink or smoke during handling. Wash hands and face thoroughly after handling. Contaminated clothing must be changed and washed before reuse. Tanks should be electrically grounded and have containment levee.

Sources of heat and direct sunlight.

To avoid

Fire and explosion prevention

It is not expected that the product present danger of fire or explosion. Keep the product away from heat, sparks, open flames and other ignition sources.

Incompatible product and materials / other information

Do not store together with food, rations, medications, beverages intended for human and animal consumption.

Safe materials for packaging

Recommended: Product is already packed in appropriate packaging.

### 7.3 - Specific end use(s)

See the technical information sheet of this product for more information.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION


### 8.1 Control parameters

Occupational exposure limits

Chemical name	Exposure Limit	Type	References
<b>Phthalic anhydride</b>	Not established	LT	NR-15
	2 ppm (12 mg/m <sup>3</sup> )	PEL-TWA	OSHA
	1 ppm (6 mg/m <sup>3</sup> )	REL-TWA	NIOSH
	0,002 mg/m <sup>3</sup> 0.002 mg/m <sup>3</sup> (inhalable fraction and vapor)	TLV-TWA	ACGIH
	0.005 mg/m <sup>3</sup> (inhalable fraction and vapor)	TLV-STEL	
	1 ppm (6 mg/m <sup>3</sup> )	PEL-TWA	CAL/OSHA

Biological indicators:

There are no biological indicators of exposure established (NR-7).

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## 8.2 Exposure controls

### 8.2.1 - Appropriate engineering controls:

The ventilation rate should be in accordance with the conditions. If applicable, use process protections, local exhaust ventilation or other engineering controls to keep the levels of material transported by air below the recommended exposure limits. It is mandatory to have facilities to wash out eyes and an emergency shower when handling this product.

### 8.2.2 - Personal protection equipment:



Respiratory protection:	Respirator with filter A - P2.
Hand protection:	Safety nitrile rubber or PVC gloves.
Eye and face protection:	Safety glasses with side protection against splashing.
Skin protection	Suitable protective clothing and closed shoes. The material used must be waterproof.
Thermal hazards:	Does not present thermal hazards.
Hygiene measures:	Wash contaminated clothing separately, avoiding contact with other utensils for personal use.

### 8.2.3 Environmental exposure controls:

See SECTION 7 (Handling and storage) and SECTION 13 (Disposal considerations) for measures to avoid excessive environmental exposure during use and waste disposal.

Technical measures to prevent exposure	Keep the PPE properly clean and in proper conditions of use, periodically carrying out inspections and possible maintenance and/or replacement of damaged equipment.
Instruction measures to prevent exposure:	Take a bath and change clothes after using the product. Wash contaminated clothing separately, avoiding contact with other utensils for personal use.
Organizational measures to prevent exposure	Emergency shower and eyewash.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state:	Solid, scales (flakes), white.
Odour	Asphyxiant (limit of odor: 0.053 ppm).
pH	> 2.0.
Melting point/freezing point:	130.6°C.
Boiling point or initial boiling point and boiling range:	284.5°C.



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Flash Point	151.7°C (closed vessel); 165°C (open vessel).
Evaporation rate	Not available.
Flammability	Not flammable. Combustible under specific circumstances.
Lower/upper limit of flammability or explosiveness	Lower: 1.7% vol. / Upper: 10.4% vol. LEL (dust): $1.5 \times 10^{-5}$ g/cm <sup>3</sup> .
Vapor density	5.1 (air = 1).
Density	1.527 g/cm <sup>3</sup> (solid at 20°C);
Steam pressure	0.06 Pa at 26,6°C
Solubility	Soluble in water (0.6 g/100g water at 25 °C). Soluble in ethyl alcohol (< 1mg/mL at 19°C), Acetone (≥ 100 mg/mL to 19 °C) and benzene (6.2 g/100g of benzene).
Partition coefficient – n-octanol/water	LogP <sub>ow</sub> : 1,6 - 2,07 at 25 ° C.
Auto-ignition temperature	580°C.
Decomposition temperature	Not available.
Viscosity	0.875 - 1,19 mPa.s.
Surface tension	Not available.
Corrosivity	Not available.

### 9.2– Other information

Molecular weight	148.117 g/mol (Phthalic Anhydride).
Saturation concentration:	0.0016 g/m <sup>3</sup> (20°C); 0.0078 g/m <sup>3</sup> (30°C).

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

There are no hazardous reactions known.

### 10.2 Chemical stability

Stable under normal conditions of handling and storage. Does not undergo polymerization.


### 10.3 Possibility of hazardous reactions

Risk of explosion in contact with oxidizing agents, nitric acid, glycerin, copper oxide and sodium nitrite. The substance can react dangerously with strong bases, alcohols, metals and water.

### 10.4 Conditions to avoid

High temperatures and contact with incompatible materials. Avoid direct contact with sunlight.



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### 10.5 Incompatible materials

Oxidizing agents, nitric acid, glycerin, copper oxide, sodium nitrite, strong bases, alcohols, metals and water.


### 10.6 Hazardous decomposition products

Thermal decomposition form irritating and toxic gases such as carbon monoxide and carbon dioxide.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity:	<p><u>LD50 Oral in rats:</u> 1530 mg/Kg.  <u>LD50 Dermal in rabbits:</u> &gt;3160 mg/Kg.  <u>LC50 Inhalation in rats:</u> &gt; 2.14 mg/L.</p>
Skin corrosion /irritation:	Causes irritation to the skin with redness and pruritus.
Serious eye damage/irritation	Causes severe ocular lesions with burning, tearing, conjunctivitis, blurred vision and pain with the possibility of irreversible lesions.
Respiratory or skin sensitization	May cause allergic reactions to the skin with dermatitis and pruritus. When inhaled can cause allergic symptoms, asthma or respiratory difficulties with shortness of breath and tiredness.
Chronic toxicity:	<p><u>Carcinogenicity:</u> Survivals of the rats and mice were not affected by administration of the test chemical. No tumors occurred in the rats or mice of either sex at incidences that could be clearly related to the administration of the test chemical. It is concluded that under the conditions of this bioassay, phthalic anhydride was not carcinogenic for F344 rats or B6C3F1 mice of either sex.</p> <p><u>Mutagenicity:</u> Phthalic anhydride was shown to be not mutagenic in the Ames test and in the mammalian cell gene mutation assay (OECD 476), both performed with and without metabolic activation.</p> <p><u>Effects on reproduction:</u> It is not expected that the product present toxicity for reproduction.</p> <p><u>Single exposure:</u> May cause irritation to the airways. If inhaled can cause respiratory irritation, bronchitis, emphysema and allergy or asthma with cough, sore throat and panting, short breathing and burning sensation.</p> <p><u>Repeated exposure:</u> In the chronic repeated oral toxicity study severe chronic inflammatory, degenerative, or proliferative lesions frequently seen in aged rats and mice occurred with approx. equal frequency and severity in the dosed and control groups of animals. No tumors occurred in the rats and mice of either sex at incidences that could be clearly related to the administration of the test chemical. Based on the reduced body-weight gain (&lt;10 %) the NOAEL in this study was 500 mg/kg/day for rats. This NOAEL was taken forward for DNEL derivation. The LOAEL in female mice is 12,019 ppm (approx. 1717 mg/kg/day) and in males 16,346 ppm (approx. 2340 mg/kg/day) due to increased incidences of lung and kidney lymphocytosis, chronic bile duct inflammation and adrenal atrophy and mineralisation of the thalamus.</p>
Systemic toxicity to target organ:	
Aspiration hazard:	It is not expected that the product present aspiration hazard.

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Other Information: Symptoms related to the physical, chemical and toxicological characteristics. Reference to other sections: 4.2.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to aquatic organisms: LC50 Fish (*Danio rerio*) (7d): 560 mg/L.  
EC50 (*Daphnia magna*) (48h): >640 mg/L.  
CE50 Algae (*Desmodesmus Subspicatus*) (72h): >100 mg/L.

Toxicity to other organisms: LC50 Birds: Not available.  
LC50 Bees: Not available.  
LC50 Earthworms: Not available.

Main effects: The product is not classified as dangerous for aquatic organisms.

### 12.2 Persistence and degradability

The hydrolysis product phthalic acid shows 74% degradation after 30 days in a closed bottle test, indicating that the substance is readily biodegradable.

### 12.3 Bioaccumulative potential

An estimated BCF of 5 was calculated in fish for phthalic anhydride, using a log Kow of 1.60 and a regression-derived equation. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is low.

### 12.4 Mobility in soil

Using a structure estimation method based on molecular connectivity indices, the Koc of phthalic anhydride can be estimated to be 10. According to a classification scheme, this estimated Koc value suggests that phthalic anhydride is expected to have very high mobility in soil.

### 12.5 Results of PBT and vPvB assessment

Not available.

### 12.6 Endocrine disrupting properties

Not available.

### 12.7 Other adverse effects


Not available.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Product/Leftover of Product: The leftovers, remnants of products, products in disuse or with validity expired, shall be packed in appropriate containers properly sealed and labeled for subsequent final disposal or disabling through incineration suitable for this type of product with specialized companies for this type of operation, authorized by competent bodies.

Used packaging: Do not reuse the packaging. Empty packaging should be completely emptied and stored in a safe place for later disposal (specific recycling if applicable or incineration in appropriate ovens and approved by competent bodies). Perform the procedures for the final disposal of waste cited above preventing them from reaching drains, sewers, ditches and waterways. Watch regulations of the specific State and Municipal Legislation in force and consult the Environment of the region.

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#### SECTION 14: TRANSPORTATION INFORMATION

National and international regulations

**DOT Classification: (Inland Transport):**

- NOT REGULATED AS DANGEROUS GOODS.

**IATA Classification: (Air Transport):**

- NOT REGULATED AS DANGEROUS GOODS.

**I.M.O. Classification: (Maritime Transport):**

- NOT REGULATED AS DANGEROUS GOODS.

DOT (Department of Transportation)

IATA (International Air Transport Association, Dangerous Goods Regulations).

I.M.O / the IMDG (International Maritime Dangerous Goods Code).

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

Component Marine Pollutants: This material does not contain any chemicals listed on the Hazardous Materials Table required by US DOT to be identified as a marine pollutant.

#### SECTION 15: REGULATORY INFORMATION

##### 15.1 – Safety, health and environmental regulations/legislation specific for the substance or mixture

**REACH Regulation (CE) No. 1907/2006**

This product only contains compounds that are on the list of pre-registered, registered or exempt substances from registration or are already considered registered in accordance with Regulation (EC) No. 1907/2006 (REACH). The above statements on the status of the registration of The substance is provided in good faith and is assumed to be accurate, as is the effective date shown above. However, no warranty is offered, either express or implied. It is the buyer / consumer's obligation to ensure that they correctly understand the regulatory status of the product.

**Seveso III: Directive 2012/18 / EU of the European Parliament and of the Council on the control of the risks inherent in serious accidents involving dangerous substances.**

Listed in the Regulation: Not applicable.

**Regulation (EC) No. 649/2012 of the European Parliament and of the Council, of July 4, 2012, relative to the export and import of dangerous chemicals:** Not applicable.

##### 15.2 – Chemical Safety Assessment

For the proper and safe use of this product, please refer to the approved conditions stated on the product label.

#### SECTION 16: OTHER INFORMATION


**Recommended use-** Follow all recommendations of use, storage, and disposal indicated by the manufacturer/registrant and described on the packaging, product package insert and cited in Section 1 of this MSDS.

**Texts of the sentences covered in section 2:**

H302 – Harmful if swallowed.

H332 – Harmful if inhaled.

H315 – Causes skin irritation.

	<b>MATERIAL SAFETY DATA SHEET</b>  <b>PHTHALIC ANHYDRIDE IN FLAKE</b>	<b>MSDS:</b>	<b>PET0001</b>
		<b>Revision:</b>	0
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H318 – Causes serious eye damage.

H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 – May cause an allergic skin reaction.

H335 – May cause respiratory irritation.

**No. 1272/2008 [CLP]:**

Acute toxicity – Oral – Category 4: H302

Acute toxicity – Inhalation – Category 4: H332

Skin Corrosion/irritation – Category 2: H315

Serious Eye Damage/Eye Irritation – Category 1: H318

Respiratory sensitization – Category 1: H334

Skin sensitization – Category 1: H317

Specific target organ toxicity (single exposure) – Category 3: H335

**Important Legal Notice Important-** The data and information contained herein is provided in good faith and represent the best current knowledge about the matter, and are based from data supplied by the registrant company, manufacturer or importer of this product, available at the moment, however do not completely exhaust the subject. No warranty is given about the result of the application of such data and information, not absolving users/receivers /workers/employers of their responsibilities, at any stage of the handling, storage, processing, packaging and distribution of this material/product. Prevail over the data contained herein the provisions in the legislation, regulations and standards in force. The registrant assumes no liability for any losses, damages, or expenses related to the handling, storage, use or disposal of the product, repair of damages or compensation of any kind.

Be warned that the handling of any chemical substance requires prior knowledge of its dangers by the user. The company using the product should promote the training of its employees and contractors regarding the possible risks coming from the product.

**Glossary:**

**ACGIH** – American Conference of Governmental Industrial Higyenists;

**GHS** – Globally Harmonized System

**LC50** – Lethal Concentration

**LD50** – Lethal Dose

**EC50** - effective concentration

**NFPA** - National Fire Protection Association

**PPE** - Personal Protection Equipment;

**N/A.** - Not applicable;

**N/A.** - Not available;

**NR** - Not relevant;

**UN:** The United Nations Organization;

**OSHA** - Occupational Safety and Health Administration;

**PEL** -Permissible Exposure Limits;

**REL** - Recommended Exposure Limits;

**TLV** - Threshold limit value;

**TWA** - Time Weighted Average.

**NBR** - Brazilian Standard

**GHS** - Globally Harmonized System

**ABNT** - Brazilian Technical Standards

**EPA** - Environmental Protection Agency

**IARC** - International Agency for Research on Cancer