1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Chemical Name	tris(2-nonylphenyl) phosphite
CAS NO.	26523-78-4

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

1. TNPP is used to enhance the heat, colour and processing stability of a broad spectrum of polymer including elastomers, thermoplastic elastomers, rubber-plastic blends, styrenics, polyolefins and PVC.
2. It is recommended as an Antioxidant and / or stabilizer for- Styrene Butadiene Rubber, Acrylonitrile Butadiene Rubber, Poly Butadiene Rubber,Styrene Butadiene Rubber Latex,Radiation Vulcanized Natural Rubber Latex,Polyurethane,Acrylonitrile-Butadiene-Styrene,Polypropylene,Polyester,High density polyethylene,Low density polyethylene,Polycarbonate,Polystyrene ,High Impact Polystyrene,Alkyl Resins,Poly vinyl chloride.PVC Compounds.Epoxy resin.PVC films/sheets.PVC stabilizers

Details of the supplier of the safety data sheet

COMPANY

POLYMER ADD (THAILAND) CO., LTD.
106, Chalaremprakiat, Lor 9, Soi 22, Yak 5,Nongbon, Prawet,Bangkok
Bangkok - 10250
Thailand
Telephone : 0804531391
Email - contact@polymeradd.co.th

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Human Health	Skin irritation (Category 2), H315 Serious eye damage (Category 1), H318 Skin sensitization (Category 1), H317 Reproductive toxicity (Category 2), H361fd
Environment	Short-term (acute) aquatic hazard (Category 1), H400 Long-term (chronic) aquatic hazard (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

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

Pictogram

	Signal word	Danger
	H315	Causes skin irritation.
	H317	May cause an allergic skin reaction.
	H318	Causes serious eye damage.
	H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
	H410	Very toxic to aquatic life with long lasting effects.
	P201	Obtain special instructions before use.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protectio
	P302 + P352	IF ON SKIN: Wash with plenty of water
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lense
	P308 + P313	IF exposed or concerned: Get medical advice/ attention
	According to European Directive 67/548/EEC as amended	none
2.3	Other hazards	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Component	
Chemical Name	tris(2-nonylphenyl) phosphite
CAS NO	26523-78-4
EC Number	701-028-2
Molecular Formula	C45H69O3P
Molecular Weight	689
Concentration	>= 90 - <= 100 %

4 FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance

If inhaled	fresh air. Call in physician.
In case of skin contact	Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.
In case of eye contact	rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses
If swallowed	immediately make victim drink water (two glasses at most). Consult a physician.

4.2 **Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 **Indication of any immediate medical attention and special treatment needed**

No data available

5 FIREFIGHTING MEASURES

5.1 **Extinguishing media**

Suitable extinguishing media	Foam Carbon dioxide (CO2) Dry powder
5.2 **Special hazards arising from the substance or mixture**	Carbon oxides Oxides of phosphorus Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire
5.3 **Advice for firefighters**	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
5.4 **Further information**	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water

6 ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions protective equipment and emergency procedures**

Do not breathe vapors, aerosols.
Avoid substance contact.
Ensure adequate ventilation.
Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

6.2 **Environmental precautions**

Do not let product enter drains.

6.3 **Methods and materials for containment and cleaning up**

Cover drains.
Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up carefully with liquid-absorbent material (e.g. Chemizorb®).
Dispose of properly.
Clean up affected area.

6.4 **Reference to other sections**

For disposal see section 13.

7 HANDLING AND STORAGE

7.1 **Precautions for safe handling**

For precautions see section 2.2.

7.2 **Information about protection against explosions and fires**

No data available

7.3 **Conditions for safe storage including any incompatibilities**

Tightly closed.

7.4 **Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **Control parameters**

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Tightly fitting safety goggles

Skin protection

Handle with gloves.
Gloves must be inspected prior to use.
Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands.
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection

protective clothing

Respiratory protection

required when vapours/aerosols are generated.
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.
Recommended Filter type: Filter type ABEK The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.
These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

9 PHYSICAL AND CHEMICAL PROPERTIES

a)Appearance	colorless, light yellow liquid
b)Odour	phenol-like
c)Odour Threshold	No data available
d)pH (% solution in water)	No data available
e)Melting point/freezing point	6 °C - OECD Test Guideline 102
f)Initial boiling point and boiling range	180 °C at 4 hPa
g)Flash point	207 °C - closed cup
h)Evaporation rate	No data available
i)Flammability (solid or gas)	No data available
j)Upper/lower flammability or explosive limits	No data available
k)Vapour pressure	0.039 hPa at 20 °C
l)Vapour density	No data available
m)Relative density	0.98 at 20 °C - OECD Test Guideline 109
n)Water solubility	0.0006 g/l at 27 °C at 7 hPa - OECD Test Guideline
o)Partition coefficient: n-octanol/water	log Pow: 14 at 25 °C

	p)Autoignition temperature	440 °C at 1.013 hPa
	q)Decomposition temperature	No data available
	r)Viscosity	No data available
	s)Explosive properties	No data available
	t)Oxidizing properties	No data available
9.2	**Other safety information**	
	Bulk Density	No data available

10 STABILITY AND REACTIVITY

10.1	Reactivity	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
10.2	Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) .
10.3	Possibility of hazardous reactions	No data available
10.4	Conditions to avoid	Strong heating.
10.5	Incompatible materials	Oxidizing agents, Strong reducing agents, Organic materials, acids Strong acids and strong bases, Water
10.6	Hazardous decomposition products	In the event of fire: see section 5

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	No data available
Acute oral toxicity	LD50 Oral - Rat - male and female - 16.200 - 21.800 mg/kg
Acute dermal toxicity	LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg
Skin corrosion/irritation	Mixture causes skin irritation.
Serious eye damage/eye irritation	Mixture causes serious eye damage.
Respiratory or skin sensitization	Mixture may cause an allergic skin reaction.
Germ cell mutagenicity	Chromosome aberration test in vitro Chinese hamster ovary cells Result: negative Ames test Escherichia coli/Salmonella typhimurium Result: negative
IARC	No ingredient of this product present at levels

		greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
	Reproductive toxicity	Evidence of harm to the unborn child. Evidence to impair fertility
	Specific target organ toxicity - single exposure	No data available Acute inhalation toxicity - Possible symptoms:, mucosal irritations
	Specific target organ toxicity - repeated exposure	No data available
	Aspiration hazard	No data available
	RTECS	RB2451000

Signs And Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12 ECOLOGICAL INFORMATION

12.1	Toxicity	No data available
12.2	**Persistence and degradability**	
	Biodegradation	
	No data available	
12.3	Bio accumulative potential	No data available
12.4	Mobility in soil	No data available
12.5	Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
12.6	Other adverse effects	No data available

13 DISPOSAL CONSIDERATIONS

13.1 **Waste treatment methods**

Product

processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14 TRANSPORT INFORMATION

14.1 **UN number**

ADR/RID	**IMDG**	**IATA**

3082	3082	3082

14.2 **UN proper shipping name**

ADR/RID	**IMDG**	**IATA**
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tris(monononylphenyl)phosphite, 4-Nonylphenol, branched)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tris(monononylphenyl)phosphite, 4-Nonylphenol, branched)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tris(monononylphenyl)phosphite, 4-Nonylphenol, branched)

14.3 **Transport hazard class(es)**

ADR/RID	**IMDG**	**IATA**
9	9	9

14.4 **Packaging group**

ADR/RID	**IMDG**	**IATA**
III	III	III

14.5 **Environmental hazards**

ADR/RID	**IMDG Marine pollutant**	**IATA**
yes	yes	yes

14.6 Special precautions for user

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

15 REGULATORY INFORMATION

15.1 **Safety health and environmental regulations/legislation specific for the substance or mixture**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 **Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

16 OTHER INFORMATION

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child
H400	Very toxic to aquatic life.

H410	Very toxic to aquatic life with long lasting effects.
Month of Creation	March 2021
Month of Revision	March 2024