

MATERIAL SAFETY DATA SHEET

: According to EC-directive 2001/58/EC

Rubber Antioxidant 4010NA(IPPD)

HS Code: 29215190.90

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product label name	N-isopropyl-N'-phenyl-p-phenylene diamine Qingdao YLSCH Industry&Trade Co.,Ltd
Supplier	Room 501,2-3 Unit. No.8,Zhengzhou Road, Qingdao,China. TEL: +86 18661665800
Emergency telephone	TEL: +86 18661665800
Intended use	Rubber Antioxidant

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	N-isopropyl-N'-phenyl-p-phenylene diamine
CAS NO.	101-72-4
Chemical description	Dark brown to violet pellet
TSCA NO.	none
EINECS NO.	none
Other information	C ₁₅ H ₁₈ N ₂

3. HAZARDS IDENTIFICATION

May cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Symptoms and effects	Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. Repeated contact may cause skin sensitization.
First aid	
General	In all cases of doubt, or when symptoms persist, seek medical attention.
Inhalation	Move to fresh air. If symptoms persist, seek medical advice. Remove all contaminated clothing immediately. Wash off with plenty of soap and water.
Skin	Seek medical advice if irritation develops. Launder clothes before reuse.

Eye	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.
Ingestion	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.
Advice to physician	Treat symptomatically. Monitor respiratory system function.

5. FIRE-FIGHTING MEASURES

Extinguishing media	Waterspray, water mist, foam, dry chemical powder, CO ₂
Unsuitable extinguishing media	Waterjet
Special exposure hazards	Emits toxic fumes under fire conditions.
Hazardous decomposition/ Combustion products	Carbon monoxide (CO), carbon dioxide (CO ₂), nitrous gases (NO _x).
Protective equipment	Wear self contained breathing apparatus.
Other information	Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	For personal protection see Section 8. Avoid dust generation.
Environmental precautions	Avoid discharge into the environment. Collect as much as possible in a clean container for
Methods for cleaning up	(preferable) reuse or disposal.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid dust generation. Take precautionary measures against static discharges.
Fire and explosion prevention	Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition.
Storage requirements	Store in a dry and cool place. Store away from strong oxidizing materials. Avoid exposure to direct sunlight. Do not double stack.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Avoid dust generation.Ensure good ventilation and local exhaustion of the working area.
Exposure limits	

**Name:**N-isopropyl-N'-phenyl-p-phenylene diamine**Personal protection****Respiratory**

Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment.

Hand

Wear suitable gloves.

Eye

Wear safety goggles.

Skin and body

Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Dark brown to violet granule	Colour	Dark brown to violet
Odour	Amine-like	Boiling point	161°C
Melting point ≥	70°C	Flash point	303°F/150.5°C
Flammability	Solid:substance:not (in)flammable.	Explosion limits	----
Explosive properties	Dust:dust-explosion hazard	Decomposition temperature	----
Oxidizing properties	not applicable	Vapour pressure	0.00343mmHg(25°C)
Density	1.180-1.190g/cm ³ (20°C)	Bulk density	----
Solubility in water	insoluble	Solubility in other solvents	Oil acetone benzene and toluene
pH value	----	Partition coefficient	Log Pow = 3.5
Residues (150um)% Max	----	Heating Loss % Max	----
Viscosity	----	Assay content % ≥	95
Strrength of grain (N)	8-10	Zinc content %	----

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage and handling conditions (see section 7).
Conditions to avoid	Temperatures above 300°C. Avoid contact with strong oxidants
Materials to avoid	Strong oxidizers.
Hazardous decomposition products	Thermal decomposition products: carbon monoxide (CO), carbon dioxide(CO ₂),nitrous gases (NOx).

11. TOXICOLOGICAL INFORMATION

Name	N-isopropyl-N'-phenyl-p-phenylene diamine
Acute toxicity	
Oral LG50	rat: 900mg/kg.

Dermal LD50	rabbit: >7940mg/kg.
Irritation	
Skin	May cause an allergic skin reaction.
Eye	May cause redness, swelling, pain and tearing.

12. ECOLOGICAL INFORMATION

Name	N-isopropyl-N'-phenyl-p-phenylene diamine
Ecotoxicity	
	96h-LC50 (Rainbow trout): 0.34 mg/l.
Fish	96h-LC50 (Bluegill sunfish): 0.43 mg/l. 96h-LC50 (Fathead minnow): 0.41mg/l.
Daphnia	48h-EC50 (Daphnia magna): 1.10 mg/l.
Algae	96h-EC50 (Cell number): 0.50 mg/l.
Fate	
Degradation Biotic	Not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Product	Avoid discharge into the environment Small quantities: According to local regulations. Large quantities: Consult YLSCH Chemical for special advice.
Contaminated packaging	According to local regulations. Waste code number: Please refer to your specific industry
Other information	in the European Waste Catalogue.

14. TRANSPORT INFORMATION

Land transport (ADR/ RID)			
ADR class	----	RID class	----
ADR/RID packing group	----	Hazard Identification No.	----
Substance Identification No.	----	UN number	----
	Environmentally hazardous substance, solid, n.o.s.		
Proper Shipping Name	(N-isopropyl-N'-phenyl-p-phenylene diamine)		
Sea transport (IMDG-code/ IMO)			

Correct technical name	----	IMDG Class	
UN Number	----	Packaging group	
EMS Number	----		
Air transport (ICAO-TI/ IATA-DGR)			
ICAO-TI/IATA-DGR Class	----	UN number	----
Packing group	Environmentally hazardous substance, solid, n.o.s.		
Correct technical name	(N-isopropyl-N'-phenyl-p-phenylene diamine)		

15. REGULATORY INFORMATION

Chemical description	N-isopropyl-N'-phenyl-p-phenylene diamine
Labelling according to EC directives	
EC-number	See section 2
Classification based on	Annex-1 to directive 67/548/EEC
	R 43 May cause sensitization by skin contact
R(isk) phrase(s)	May cause long-term adverse effects in the aquatic environment.
	S 24 Avoid contact with skin
	S 37 Wear suitable gloves
S(afety) phrase(s)	S 60 This material and its container must be disposed of as hazardous waste
	S 61 Avoid release to the environment. Refer to special instructions/Safety data sheets
Other information	To be displayed on the label: "EC label".
Wassergefährdungsklasse (WGK)	

16. OTHER INFORMATION

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.