

SAFETY DATA SHEET

1. Chemical product and company identification

Product name Multilon® RN-3130BK
SDS Number RN3130BK-JpE
Version number 01
Issue date 04-01-2013
Revision date -
Company name TEIJIN Limited.
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Recommended use of the chemical and restrictions on use

Intended use Molding material for industry use

2. Hazards identification

GHS-classification The product is not classified according to GHS.
GHS label elements None.
Precautionary statement None.
National/local information See section 15 for regulatory information.

3. Composition/information on ingredients

Substance or Mixture Mixture

Components	CAS #	Gazette notification		Concentration (%)
		ENCS no.	ISHL no.	
Polycarbonate resin	25971-63-5	(7)-738	(7)-738	30 – 40
Acrylonitrile butadiene styrene resin	9003-56-9	(6)-176	(6)-176	10 – 20
Glass fiber	65997-17-3	Exempted	Exempted	=< 35
Talc	14807-96-6	(1)-468	(1)-468	
Tetrabromobisphenol-A carbonate oligomer	Proprietary	Proprietary	Proprietary	=< 15
Triphenyl phosphate	115-86-6	(3)-2522	(3)-2522	6

Chemical formula: (C₁₅H₁₆O₂.CCl₂O)_x (25971-63-5), (C₈H₈.C₄H₆.C₃H₃N)_x (9003-56-9), H₂-O₃-Si 3/4Mg (14807-96-6), C₁₈-H₁₅-O₄-P (115-86-6)

Composition comments Triphenyl phosphate is classified as GHS hazardous to the aquatic environment (acute and chronic) category 1. However, because the test result on a similar product showed low water extractivity of triphenyl phosphate (OECD GUIDELINE FOR TESTING OF CHEMICALS 120), the bioavailability of triphenyl phosphate in this product is expected to be low and the environmental hazard of the product is considered to be low.

4. First aid measures

If inhaled In case of inhalation of dusts or fumes from heated product: Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort continues.

If on skin Rinse with water. Get medical attention promptly if symptoms persist or occur after washing. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.

If in eyes Dust in the eyes: Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.

If swallowed Rinse mouth thoroughly. Large quantities: Get medical attention if symptoms occur.

Expected acute and delayed Symptoms Talc may have effects on the lungs, resulting in talc pneumoconiosis.

Protection of first-aid responders First aid personnel must be aware of own risk during rescue.

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.
Extinguishing media to avoid None.
Specific hazards During fire, gases hazardous to health may be formed.
Special fire fighting procedures Use standard firefighting procedures and consider the hazards of other involved materials.
Protection of fire-fighters Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6. Accidental release measures

Personal precautions, protective equipment and emergency measures Avoid inhalation of dust. See Section 8 of the SDS for Personal Protective Equipment.
Environmental precautions Do not allow to enter drains, sewers or watercourses.
Clean-up methods and materials and containment measures Collect and dispose of spillage as indicated in Section 13 of the SDS.

7. Handling and storage

Handling

Technical measures Use explosion-proof electrical equipment if airborne dust levels are high.
Local and general ventilation Provide adequate ventilation.
Precautions Use work methods which minimize dust production. Wear appropriate personal protective equipment.
Safe handling advice Avoid inhalation of dust. Avoid prolonged or repeated contact with skin. Avoid vapors from heated materials to prevent exposure to potentially toxic/irritating fumes.

Storage

Technical measures Avoid dust formation.
Suitable storage conditions Store in closed original container in a dry place.
Safe packaging materials Keep in original container.

8. Exposure controls/personal protection

Occupational exposure limits

Japan. OELs - JSOH. (Japan Society of Occupational Health: Advisory Opinion on Permissible [Exposure] Limits)

Components	Type	Value	Form
Talc (14807-96-6)	TWA	2 mg/m ³	Total dust.
		0.5 mg/m ³	Respirable dust.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Glass fiber (65997-17-3)	TWA	5 mg/m ³	Inhalable fraction.
Talc (14807-96-6)	TWA	2 mg/m ³	Respirable fraction.
Triphenyl phosphate (CAS 115-86-6)	TWA	3 mg/m ³	

Engineering measures Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of dust and fumes.

Personal protective equipment

Respiratory protection Wear respirator if there is dust formation. When the product is heated, use suitable respiratory equipment with gas filter for organic gas.
Hand protection Wear protective gloves. When material is heated, wear gloves to protect against thermal burns.
Eye protection Use tight fitting goggles if dust is generated. If contact with hot material may occur, safety glasses and face shield are recommended.
Skin and body protection Wear suitable protective clothing.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Pellets.
Color	Natural.
Odor	None.
pH	Not applicable.
Melting point/Freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not applicable.
Flash point	Not available.
Auto-ignition temperature	Not available.
Combustion characteristics (solid, gas)	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Specific gravity	1.48
Solubility	Insoluble in water
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.

10. Stability and reactivity

Stability	Stable under normal temperature conditions.
Possibility of hazardous reactions	Will not occur.
Conditions to avoid	None known.
Incompatible materials	No data available.
Hazardous decomposition products	During combustion: Carbon monoxide. Carbon Dioxide. Acrylonitrile. Hydrogen cyanide. Nitrogen oxides (NOx). Hydrogen bromide. Phosphoric acid.

11. Toxicological information

Acute toxicity	May cause discomfort if swallowed.
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Components

Test Results

Triphenyl phosphate (CAS 115-86-6)	Acute Dermal LD50 Rabbit: > 7.9 g/kg
	Acute Oral LD50 Guinea pig: > 4000 mg/kg
	Acute Oral LD50 Rat: 3500 mg/kg

Skin corrosion/irritation	Dust may irritate skin.
Serious eye damage/eye irritation	Dust in the eyes will cause irritation. May cause redness and pain.
Respiratory sensitizer	None known.
Skin sensitizer	None known.
Germ cell mutagenicity	None known.
Carcinogenicity	The product contains a small amount substance that is suspected of causing cancer.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Acrylonitrile butadiene styrene resin (CAS 9003-56-9)	3 Not classifiable as to carcinogenicity to humans.
Glass fiber (CAS 65997-17-3)	3 Not classifiable as to carcinogenicity to humans.
ACGIH Carcinogens	
Glass fiber (CAS 65997-17-3)	A4 Not classifiable as a human carcinogen.
Talc (CAS 14807-96-6)	A4 Not classifiable as a human carcinogen.
Triphenyl phosphate (CAS 115-86-6)	A4 Not classifiable as a human carcinogen.
Toxic to reproduction	None known.
Specific target organ toxicity - single exposure	None known.

Specific target organ toxicity - repeated exposure

The product contains a substance that may cause damage to organs through prolonged or repeated exposure. Talc may have effects on the lungs, resulting in talc pneumoconiosis.

12. Ecological information

Ecotoxicological data

Components	Species	Test Results	
Triphenyl phosphate (CAS 115-86-6)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.86 - 1.2 mg/l, 48 Hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.3 mg/l, 96 Hours
		Fathead minnow (Pimephales promelas)	0.87 mg/l, 96 Hours

Ecotoxicity

Triphenyl phosphate is classified as GHS hazardous to the aquatic environment (acute and chronic) category 1. However, because the test result on a similar product showed low water extractivity of triphenyl phosphate (OECD GUIDELINE FOR TESTING OF CHEMICALS 120), the bioavailability of triphenyl phosphate in this product is expected to be low and the environmental hazard of the product is considered to be low.

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence/degradability

None known.

Bioaccumulation

None known.

Mobility in soil

The product is insoluble in water and will sediment in water systems.

Other hazardous effects

None known.

13. Disposal considerations

Residual waste

Dispose of waste at a facility with special permission to dispose industrial wastes. Waste should be accompanied by a manifest for the industrial waste. Dispose of in accordance with local regulations. Do not discharge into rivers, lakes, mountains, etc. because the product may affect the environment.

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

International regulations

Not regulated as dangerous under UN transport regulation.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

Industrial Safety and Health Act

Specified substances regulation

Not regulated.

Organic solvents regulation

Not regulated.

Notifiable substances

Triphenylphosphate 6.0 %

Labeling substances

Not regulated.

Poisonous and Deleterious Substances Control Act

Not regulated.

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

Class I specified chemical substances

Not regulated.

Class II specified chemical substances

Not regulated.

Monitoring chemical substances

Not regulated.

Law concerning Pollutant Release and Transfer Register

Specified class 1 substances (substance name, ordinance number and content)

Not regulated.

Class 1 substances (substance name, ordinance number and content)

Triphenylphosphate Ordinance No. 461 6.0 %

Class 2 substances (substance name, ordinance number and content)

Not regulated.

Fire Service Act	Not dangerous goods under Fire Service Law
Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule	Not regulated.
Air Law, Enforcement Rule	Not regulated.
Explosives Control Act	Not regulated.
High Pressure Gas Safety Act	Not regulated.
Act on Prevention of Marine Pollution and Maritime Disaster	Not regulated.
Water Pollution Control Act	PHOSPHORUS

16. Other information

The information about colorant is not contained in this SDS.

This information is provided without warranty. The information is believed to be correct. The precautions in this SDS are intended for normal use. Please take safety measures appropriate to the use and the application when handling the product in a special way. This information should be used to make an independent determination of the methods to safeguard workers and the environment.