

Manufacturer: AngstromLink™

Product Name:

AngstromLink OKP4 Optical Plastic - 25Kg

Manufacturer Part Number:

OKP4-25KG

Click here for more details on the AngstromLink OKP4 Optical Plastic - 25Kg

Product name: OKP4 Creation date: 2011/Dec./05 SDS No.: OGC-145-2E Revision date: 2021/Dec./06

SAFETY DATA SHEET

1. IDENTIFICATION

Product name : OKP4

Company identification : Osaka Gas Chemicals Co., Ltd.

Section : Fine Materials Business Div. Quality Assurance Dept.

Address : 5-11-61, Torishima, Konohana-ku Osaka 554-0051, Japan

Telephone number : +81 (0)6-6462-1075
Fax number : +81 (0)6-6466-4568

Recommended use of the chemical

and restrictions on use : Raw materials for various optical components

2. HAZARDS IDENTIFICATION

GHS Classification

Physical hazards

Flammable solids : Classification not possible

Health hazards : Classification not possible

Environmental Hazards : Classification not possible

Note1: Sub-headings of Physical hazards, Health hazards and other Environmental Hazards that are not described above are classified into "Classification not possible" or "Not classified" as of revision date.

Note2: Please handle with care because hazard data is not fully available for this product.

GHS label elements

No Hazard pictograms

No Signal Word

Hazards

-

Precautionary statements

-

1/7







Manufacturer:

AngstromLink™

Product Name:

AngstromLink OKP4 Optical Plastic - 25Kg

Manufacturer Part Number:

OKP4-25KG

Click here for more details on the AngstromLink OKP4 Optical Plastic - 25Kg

Product name: OKP4 Creation date: 2011/Dec./05 SDS No.: OGC-145-2E Revision date: 2021/Dec./06

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

Chemical name	Concentration	Chemical formula	Cas.No.
Fluorene based polyester copolymer	>99%	Non-disclosure	Non-disclosure

4. FIRST-AID MEASURES

Inhalation

If a person feel sick after inhaling the gas from the melt, move the person to fresh air and rest the person in a position to breathe easily. Even if the person doesn't have any symptoms immediately, get medical advice/attention immediately.

Skin contact

If contact with molten resin, cool with clean water immediately. The resin solidified on the skin should not be forcibly removed. If the person gets burned, get medical advice/attention. If contact with heated product, clean the contacted part, take measures against burns and get medical advice/attention.

Eye contact

If contact with this product, immediately flush eyes carefully with clean water for several minutes. If discomfort persists, get medical advice/attention.

If contact with molten resin, immediately cool and flush eyes carefully with clean water for several minutes. Remove contact lenses if they are used and continue cleaning unless they are stuck. Continue flushing. Get medical advice/attention.

Ingestion

Make the person vomit immediately. If ingest large quantities of the product, get medical advice/attention.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water, foam fire-extinguisher, powder fire-extinguisher, carbon dioxide, dry sand

Unsuitable extinguishing media

Nothing special

Specific hazards arising from the chemical

Incomplete combustion can produce carbon monoxide in addition to carbon dioxide and water. If the fire is strong, use gas masks or protective equipment.

2/7

OSAKA GAS CHEMICALS CO.,LTD.





Manufacturer:

AngstromLink™

Product Name:

AngstromLink OKP4 Optical Plastic - 25Kg

Manufacturer Part Number:

OKP4-25KG

Click here for more details on the AngstromLink OKP4 Optical Plastic - 25Kg

Product name: OKP4 SDS No.: OGC-145-2E

Creation date: 2011/Dec./05 Revision date: 2021/Dec./06

Specific fire extinguishing method

Cut off combustion source to the origin of fire and extinguish with appropriate fire extinguishing agent. Fire-fighting activities should be done from the windward side as much as possible. Appropriate measures should be taken to prevent substances that affect the environment from flowing out by discharging water for fire extinguishing.

Special protective equipment and precautions for fire-fighters

Wear appropriate protective equipment (protective gloves/eye protection/protection mask etc.). Fire-fighting activities should be done from the windward side as much as possible to avoid inhaling toxic gas. Wear respiratory protectors depending on a situation.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear protective clothing and equipment (protective gloves/eye protection/protection mask etc.) when handling. Secure sufficient ventilation.

Environmental precautions

Attention should be given to prevent spilled material from entering into the environment such as a river and affecting the environment.

Methods and materials for containment and cleaning up

If the product spills on the road or floor, collect the all the spillage with a broom or vacuum cleaner, etc., to prevent a fall.

Prevention of second disaster

Remove ignition sources near the spillage area and prepare extinguishing media. Use safety equipment which doesn't generate spark.

7. HANDLING AND STORAGE

Handling

Technical measures

Do not retain the product at high temperature for a long time as it may cause thermal decomposition. Ground the equipment and remove static electricity to prevent from dust explosion due to generating the powder during machining. If gas is generated during heating and melting, wear protective equipment and install an effective local exhaust ventilation system so as not to inhale the generated gas.

Safety precautions

Do not inhale generated gas during processing. Avoid direct contact with high temperature resin.

3/7







Manufacturer:

AngstromLink™

Product Name:

AngstromLink OKP4 Optical Plastic - 25Kg

Manufacturer Part Number:

OKP4-25KG

Click here for more details on the AngstromLink OKP4 Optical Plastic - 25Kg

Product name: OKP4 SDS No.: OGC-145-2E Creation date: 2011/Dec./05 Revision date: 2021/Dec./06

Contact avoidance

Do not touch the molten resin to prevent from burns.

Storage

Safe storage conditions

Store in a dry place away from heat sources, ignition sources and direct sunlight as this product is flammable. Precaution should be taken for electrostatic discharge.

Safety packaging materials

Not applicable (Other packaging is not intended to be used to store this product.)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control concentration

Chemical name	Control concentration	Occupational exposure limits (Japan Society for Occupational Health (2019 ver.))	Occupational exposure limits (ACGIH(2019ver.))
Fluorene based polyester copolymer	Not established	Not established	Not established

Facility measures

Install an effective local exhaust ventilation system when heating and melting during molding, etc.

Protective equipment

Respiratory protection

Appropriate local exhaust ventilation should be used during operations which has the risk such as inhaling dust, vapors, or gases. Wear dust and gas masks as needed.

Hand protection

When handling molten resin, wear heat-resistant gloves to prevent burns.

Eye/face protection

Wear protective glasses and work goggles as needed.

Skin/body protection

When handling molten resin, wear long sleeves and long pants to prevent burns.

4/7

OSAKA GAS CHEMICALS CO.,LTD.





Manufacturer: AngstromLink™

Product Name:

AngstromLink OKP4 Optical Plastic - 25Kg

Manufacturer Part Number:

OKP4-25KG

Click here for more details on the AngstromLink OKP4 Optical Plastic - 25Kg

Product name: OKP4 Creation date: 2011/Dec./05 SDS No.: OGC-145-2E Revision date: 2021/Dec./06

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical form : Solid(pellet)
Color : Transparent
Odor : No odor

Melting point/freezing point : This product does not have a definite melting point but gradually softens

above 200°C.

Boiling point or initial boiling point and

boiling range

: Not available

: Not available

Flammability

Lower explosion and upper explosion /

sion / : Not available

flammability limits

Flash point : >210°C(Seta closed-cup test method)

Auto-ignition point : Not available

Decomposition temperature : Not available

pH : Not available

Kinematic viscosity : Not available

Solubility : Insoluble in water, soluble in chloroform, tetrahydrofuran

n-octanol/water partition : Not available

coefficient(log)

Vapor pressure : Not available

Density and/or relative density : 1.22(specific gravity)

Relative gas density : Not available

Particle characteristics : Not available

Other data

Oxygen index : 31.6%Ignition point $: \ge 410^{\circ}C$ Explosibility : Not explosive.

Note: The minimum concentration of suspended dust was 40 g/m³.

10. STABILITY AND REACTIVITY

Reactivity : Stable and non-reactive under normal temperature and pressure.

Chemical Stability : Not available
Potential hazardous reaction : Not available
Conditions to avoid : Not available
Incompatible materials : Not available
Hazardous decomposition products : Not available

5/7

OSAKA GAS CHEMICALS CO.,LTD.





Manufacturer: AngstromLink™

Product Name:

AngstromLink OKP4 Optical Plastic - 25Kg

Manufacturer Part Number:

OKP4-25KG

Click here for more details on the AngstromLink OKP4 Optical Plastic - 25Kg

Product name: OKP4 Creation date: 2011/Dec./05 SDS No.: OGC-145-2E Revision date: 2021/Dec./06

: Classification not possible

11. TOXICOLOGICAL INFORMATION

Acute Toxicity : Classification not possible Skin corrosion/irritation : Classification not possible* Serious eye damage/eye irritation : Classification not possible* Respiratory : Classification not possible Skin sensitization : Classification not possible Mutagenicity : Classification not possible Carcinogenicity : Classification not possible Reproductive toxicity : Classification not possible Specific target organ toxicity/ systemic toxicity (single : Classification not possible

exposure)

Specific target organ toxicity/ systemic toxicity

(repeated exposure)

Aspiration hazard : Classification not possible

12. ECOLOGICAL INFORMATION

Ecotoxicity : Classification not possible

Persistence/degradability : Not available
Bioaccumulative potential : Not available
Mobility in soil : Not available

Hazardous to the ozone layer : Classification not possible

Others: Attention should be given to handle when spillage or disposal because this product may affect the environment. Avoid discharging this product or washing wastewater directly to the ground, rivers or drains.

13. DISPOSAL CONSIDERATIONS

Waste residues

Disposing should be done in compliance with related regulations and regulations of local government. If the disposal method described above is not available, waste disposal should be consigned to an industrial waste disposer that has been approved by a governor.

Contaminated containers and packages

When discarding empty containers or packages, contents should be completely removed and then disposed appropriately in compliance with related regulations and regulations of local government.

6/7

OSAKA GAS CHEMICALS CO.,LTD.



 $^{{}^{\}star}\text{Gases}$ generated during drying and melting may irritate the skin and eyes.



Manufacturer:

AngstromLink™

Product Name:

AngstromLink OKP4 Optical Plastic - 25Kg

Manufacturer Part Number:

OKP4-25KG

Click here for more details on the AngstromLink OKP4 Optical Plastic - 25Kg

Product name: OKP4 Creation date: 2011/Dec./05 SDS No.: OGC-145-2E Revision date: 2021/Dec./06

14. TRANSPORT INFORMATION

UN number : Not applicable
UN proper shipping name : Not applicable
UN class : Not applicable
Packing group : Not applicable

IATA : Not regulated as dangerous goods

Precautions

Confirm that containers are not damaged, corroded and leaked before transport. This product should be loaded to avoid overturn, falling or being damaged and load collapse should be surely prevented.

15. REGULATORY INFORMATION

Ensure this material is in compliance with regulations of local government.

United States TSCA inventory (TSCA)

This product is listed on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

European List of Notified Chemical Substances (ELINCS)

This product is NOT listed on the ELINCS inventory.

16. Other information

- (1) This SDS complies with JIS Z 7252:2019 and JIS Z 7253:2019.
- (2) Please be careful with handling since the evaluation of hazards is not necessarily sufficient.
- (3) This Safety Data Sheet is a brief summary of the items to be necessary and to be noted for proper use of this product. It is intended for a normal use.
- (4) This product should be handled properly on user's responsibility in reference to this SDS.
- (5) Although the contents described in this SDS are based on information obtained or owned by the manufacturer, these data or evaluations in this SDS don't guarantee anything. The SDS may be revised based on change in law or new knowledge.





OSAKA GAS CHEMICALS CO.,LTD.