Revision Date: 2022/04/15
Product: **xMODEL35-Black**

Version: 2.1
(30786970/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

xMODEL35-Black
Recommended use of the chemical and restriction on use
Recommended use*: resin; inks; Chemical
Unsuitable for use: Uses other than recommended

** The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.*

Details of the supplier of the safety data sheet

Company:
Nexa3d, Inc.
1923 Eastman Ave STE 200
Ventura, CA 93003, USA

Telephone: +1 805-465-9001
E-mail address: info@nexa3d.com

Emergency telephone number

ChemTel 1-800-255-3924 (USA), 1-813-248-0585 (international), Contract MIS3892732

Other means of identification

Chemical family: Preparation based on: urethane, acrylates, Polymer

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Skin Sens.	1	Skin sensitization
Repr.	1B (fertility)	Reproductive toxicity
Repr.	1B (unborn child)	Reproductive toxicity
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

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Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H360	May damage fertility. May damage the unborn child.
H402	Harmful to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P261	Avoid breathing mist or vapour or spray.
P273	Avoid release to the environment.
P280	Wear eye protection.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P272	Contaminated work clothing should not be allowed out of the workplace.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P308 + P313	IF exposed or concerned: Get medical attention.
P332 + P313	If skin irritation occurs: Get medical attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P337 + P313	If eye irritation persists: Get medical attention.

Precautionary Statements (Disposal):

P405	Store locked up.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition/Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

11,14-Dioxa-2,9-diazaheptadec-16-enoic acid, 4,4,6,16(or 4,6,6,16)-tetramethyl-10,15-dioxo-, 2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl ester
CAS Number: 72869-86-4
Content (W/W): >= 25.0 - < 50.0%
Synonym: No data available.

Urethane-acrylate Polymer
CAS Number: Trade Secret
Content (W/W): >= 25.0 - < 50.0%
Synonym: No data available.

Proprietary ester compound
CAS Number: Trade Secret
Content (W/W): >= 20.0 - < 25.0%
Synonym: No data available.

Proprietary acrylate
CAS Number: Trade Secret
Content (W/W): >= 0.0 - < 3.0%
Synonym: No data available.

diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide
CAS Number: 75980-60-8
Content (W/W): >= 1.0 - < 3.0%
Synonym: Diphenyl(2,4,6-trimethylbenzoyl)phosphineoxide

carbon black
CAS Number: 1333-86-4
Content (W/W): >= 0.0 - < 0.3%
Synonym: C.I. 77266

4. First-Aid Measures

Description of first aid measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

If on skin:
Wash thoroughly with soap and water.

If in eyes:
Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Information on: Proprietary acrylate
Symptoms: Overexposure may cause:, corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Information on: carbon black
Symptoms: Overexposure may cause:, rhinitis, irritation of the mucous membranes, irritates the eyes and respiratory tract, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Indication of any immediate medical attention and special treatment needed

Note to physician Treatment:
Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
harmful vapours, carbon oxides, nitrogen oxides
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further Information:

If exposed to fire, keep containers cool by spraying with water. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray. Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing. Use personal protective clothing. Information regarding personal protective measures, see section 8.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Methods and material for containment and cleaning up

For large amounts: Dike spillage. Pump off product.
For residues: Pick up with inert absorbent material (e.g. sand, earth etc.).
Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Avoid aerosol formation. Do not inhale vapours / aerosols. Avoid contact with the skin, eyes and clothing. Wear suitable protective clothing and gloves. Provide good ventilation of working area (local exhaust ventilation if necessary).

Protection against fire and explosion:
Heated containers should be cooled to prevent polymerization. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Keep container dry because product takes up the humidity of air. Protect against heat. Protect from the effects of light. The stabilizer is only effective in the presence of oxygen. Ensure adequate inhibitor and dissolved oxygen level.

Protect from temperatures below: 0 °C
Protect from temperatures above: 40 °C

8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

Advice on system design:
Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:
Respiratory protection may not be required under normal operating conditions if adequate ventilation is provided. Observe OSHA regulations for workplace hazard assessment and equipment selection (29 CFR 1910.132). Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed. Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:

Chemical resistant protective gloves, butyl rubber (butyl) - 0.7 mm coating thickness, nitrile rubber (NBR) - 0.4 mm coating thickness, Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Tightly fitting safety goggles (cage goggles) (e.g. EN 166) and face shield.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin, eyes and clothing. Avoid inhalation. Wearing of closed work clothing is recommended. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and Chemical Properties

Form:	liquid
Odour:	acrylic-like
Odour threshold:	Not determined
Colour:	clear
pH value:	approx. 7
Freezing point:	not determined
Boiling temperature:	> 100 °C (1,013 hPa)
Flash point:	> 100 °C
Flammability:	not highly flammable
Lower explosion limit:	not determined For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.
Upper explosion limit:	(DIN 51649-1) not determined For liquids not relevant for classification and labelling.
Autoignition:	not determined (DIN 51794)
Vapour pressure:	not determined
Density:	1 g/cm3 (20 °C)
Vapour density:	not determined
Partitioning coefficient noctanol/water (log Pow):	not applicable for mixtures
Self-ignition temperature:	not self-igniting
Thermal decomposition:	184.51 °C, 271.66 kJ/kg
Viscosity, dynamic:	approx. 620 mPa.s (23 °C) approx. 100 mPa.s (60 °C)
Solubility in water:	sparingly soluble
Solubility (qualitative):	soluble solvent(s): organic solvents,
Evaporation rate:	not determined, Value can be approximated from Henry's Law Constant or vapor pressure.
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:
Corrosive effects to metal are not anticipated.

Oxidizing properties:
not fire-propagating

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
The product is stabilized against spontaneous polymerization prior to despatch.
The product can polymerize if the shelf life or storage temperature are greatly exceeded. Heat develops during polymerization. Reacts with peroxides and other radical components.

Conditions to avoid
Avoid heat. Avoid UV-light and other radiation with high energy. Avoid direct sunlight. Avoid prolonged storage. Avoid inhibitor loss.

Incompatible materials
free radical initiators

Hazardous decomposition products
Decomposition products:
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
184.51 °C, 4 K/min

11. Toxicological Information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Oral
Type of value: LD50
Species: rat
Value: > 5,000 mg/kg
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Inhalation
Type of value: LC50
Species: rat
Exposure time: 4 h
not determined

Dermal
Type of value: LD50
Species: rabbit
not determined

Assessment other acute effects
Assessment of STOT single:
Based on available data, the classification criteria are not met.

Irritation / corrosion
Assessment of irritating effects: Eye contact causes irritation. Skin contact causes irritation.
The product has not been tested. The statement has been derived from the properties of the individual components.

Sensitization

Assessment of sensitization: Sensitization after skin contact possible.

Guinea pig maximization test
Species: guinea pig
Result: sensitizing
Method: OECD Guideline 406
The product has not been tested. The statement has been derived from the properties of the individual components.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects.
Repeated inhalative uptake of the substance did not cause substance-related effects.
Repeated dermal uptake of the substance did not cause substance-related effects.
The product has not been tested. The statement has been derived from the properties of the individual components.

Genetic toxicity
Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Carcinogenicity
Assessment of carcinogenicity: Contains a compound classified as IARC Group 2B (possibly carcinogenic to humans). Based on available data, the classification criteria are not met.

Information on: carbon black
Assessment of carcinogenicity: IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term animal studies in which the substance was given by inhalation in high concentrations, a carcinogenic effect was observed. A clear indication of an increased risk of cancer in humans has so far not been shown. No carcinogenic potential can be deduced from other studies with rats and mice.

Reproductive toxicity
Assessment of reproduction toxicity: May impair fertility..

Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide
Assessment of reproduction toxicity: The results of animal studies suggest a fertility impairing effect.

Teratogenicity

Assessment of teratogenicity: May cause harm to the unborn child.

Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide
Assessment of teratogenicity: At high doses there are indications of a developmental effect.

Other Information
The product has not been tested. The statement has been derived from the properties of the individual components.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Harmful to aquatic life. Toxic to aquatic life with long lasting effects.
The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish
ILC50 (96 h) > 100 mg/l, Leuciscus idus
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic invertebrates
No data available.

Aquatic plants
No observed effect concentration (72 h) 10 - 100 mg/l (growth rate), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3, static)
The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic toxicity to fish
No data available regarding toxicity to fish.

Chronic toxicity to aquatic invertebrates
No data available regarding toxicity to daphnids.

Aquatic toxicity
Information on: 11,14-Dioxa-2,9-diazaheptadec-16-enoic acid, 4,4,6,16(or 4,6,6,16)-tetramethyl-10,15-dioxo-, 2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl ester
Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. Toxic to aquatic organisms based on long-term (chronic) toxicity study data. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish
Information on: Proprietary ester compound
LC50 (96 h) 16.7 mg/l, Poecilia reticulata (OECD Guideline 203, semistatic)

Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide
LC50 (48 h) 6.53 mg/l, Oryzias latipes (JIS K 0102-71, semistatic)
The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates
Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide
EC50 (48 h) 3.53 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)
The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants
Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide
EC50 (72 h) > 2.01 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
The statement of the toxic effect relates to the analytically determined concentration.
EC10 (72 h) 1.56 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
The statement of the toxic effect relates to the analytically determined concentration.

Chronic toxicity to aquatic invertebrates
Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide
No data available regarding toxicity to daphnids.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide
OECD Guideline 209 aerobic
activated sludge, domestic/EC20 (3 h): > 1,000 mg/l
Limit concentration test only (LIMIT test). The details of the toxic effect relate to the nominal concentration.

Bioaccumulative potential
Assessment bioaccumulation potential
The product has not been tested.

Mobility in soil
Assessment transport between environmental compartments
No data available.

Additional information
Add. remarks environm. fate & pathway:
Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:
Acutely harmful for aquatic organisms.

13. Disposal considerations

Waste disposal of substance:
Dispose of in accordance with national, state and local regulations. Contact specialized companies about recycling.

Container disposal:
Dispose of in accordance with national, state and local regulations. Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport
USDOT

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Hazard class:	9
Packing group:	III
ID number:	UN 3082
Hazard label:	9, EHSM
Marine pollutant:	YES
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE, DIPHENYL(2,4,6-TRIMETHYLBENZOYL) PHOSPHINE OXIDE)

Air transport
IATA/ICAO

Hazard class:	9
Packing group:	III
ID number:	UN 3082
Hazard label:	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE, DIPHENYL(2,4,6-TRIMETHYLBENZOYL) PHOSPHINE OXIDE)

Further information

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China “Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements” (JT/T 617.3)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical	TSCA, US	released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK	CAS Number	Chemical name
NJ	1333-86-4	carbon black
PA	1333-86-4	carbon black

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including ETHYLENE OXIDE, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:
Health: 2 Fire: 1 Reactivity: 1 Special:

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2022/04/15

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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END OF DATA SHEET