SAFETY DATA SHEET

3sixty Black Ink

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

3sixty Black Ink

Product no.

D3055

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

Relevant identified uses of the substance or mixture

Ink.

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

ACG Nyström
Älvsborgsleden 7
504 31 Borås
Sverige
Tel. +46 033-17 88 00

Contact person

Johny Sjödin

E-mail

Johny.sjodin@acgnystrom.se

SDS date

2021-08-31

SDS Version

1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Irrit. 2; H315, Causes skin irritation.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Irrit. 2; H319, Causes serious eye irritation.

STOT SE 3; H335, May cause respiratory irritation.

Repr. 1B; H360, May damage fertility or the unborn child.

STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.

Aquatic Acute 1; H400, Very toxic to aquatic life.

Aquatic Chronic 1; H410, Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

Causes skin irritation. (H315)
May cause an allergic skin reaction. (H317)
Causes serious eye irritation. (H319)
May cause respiratory irritation. (H335)
May damage fertility or the unborn child. (H360)
May cause damage to organs through prolonged or repeated exposure. (H373)
Very toxic to aquatic life with long lasting effects. (H410)

Safety statement(s)

General

-

Prevention

Obtain special instructions before use. (P201)
Wear eye protection / protective gloves / protective clothing. (P280)

Response

IF exposed or concerned: Get medical advice/attention. (P308+P313)
Get medical advice/attention if you feel unwell. (P314)

Storage

Store in a well-ventilated place. Keep container tightly closed. (P403+P233)

Disposal

Dispose of contents/container to an approved waste disposal plant. (P501)

Hazardous substances

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
hexamethylene diacrylate;hexane-1,6-diol diacrylate
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Lactam

2.3. Other hazards

Additional labelling

Not applicable

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Acrylic Monomer Blend	CAS No.: EC No.: REACH: Index No.:	30-50%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Repr. 2, H361 Aquatic Chronic 2, H411	
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl	CAS No.: 5888-33-5 EC No.: 227-561-6	20-40%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319	

Acrylate)	REACH: 01-2119957862-25 Index No.:		Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) STOT SE 3, H335
hexamethylene diacrylate;hexane-1,6-diol diacrylate	CAS No.: 13048-33-4 EC No.: 235-921-9 REACH: 01-2119484737-22 Index No.: 607-109-00-8	1-10%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	CAS No.: 75980-60-8 EC No.: 278-355-8 REACH: 01-2119972295-29 Index No.: 015-203-00-X	1-10%	Skin Sens. 1B, H317 Repr. 1B, H360 Aquatic Chronic 2, H411
Photoinitiator blend	CAS No.: EC No.: REACH: Index No.:	1-10%	Skin Sens. 1, H317 Aquatic Chronic 4, H413
Carbon black	CAS No.: 1333-86-4 EC No.: 215-609-9 REACH: 01-2119384822-32 Index No.:	1-10%	
Lactam	CAS No.: EC No.: REACH: Index No.:	1-10%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Sens. 1, H317 Acute Tox. 4, H332 Eye Irrit. 2, H319 STOT RE 1, H372

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

No special

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and

soap. Skin cleanser can be used. DO NOT use solvents or thinners.
If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30°C) for at least 5 minutes and continue until irritation stops. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

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

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact.
Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.
Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

IF exposed or concerned:
Get immediate medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.
Eye Contact - Emergency Medical Treatment Procedures:
Some photoinitiators cure in the near UV and visible light range.
Keep overhead lighting OFF as a precaution. Flush eyes for an additional 15-30 minutes prior to examination under light. DO NOT use UV light with fluorescent stain to examine injured eye without copious irrigation of the eye. May cause sensitization of susceptible persons. Use of epinephrine may be indicated. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Carbon oxides (CO / CO2).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.
Avoid inhalation of vapours from spilled material.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local

environmental authorities.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on “Disposal considerations” in regard of handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Keep only in original packaging.

Storage temperature

Dry, cool and well ventilated and protected from light

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Carbon black

Long term exposure limit (8 hours) (mg/m³): 3,5

Short term exposure limit (15 minutes) (mg/m³): 7

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020)

DNEL

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
DNEL	0,83 mg/kgbw/day
Route of exposure	Oral
Duration	Short term – Systemic effects - General population

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
DNEL	0,83 mg/kgbw/day
Route of exposure	Dermal
Duration	Short term – Systemic effects - General population

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)

DNEL	1,39 mg/kgbw/day
Route of exposure	Dermal
Duration	Short term – Systemic effects - Workers

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
DNEL	2.08 mg/kg
Route of exposure	Oral
Duration	Short term – Systemic effects - General population

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
DNEL	7.24 mg/m³
Route of exposure	Inhalation
Duration	Short term – Systemic effects - General population

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
DNEL	1.66 mg/kg
Route of exposure	Dermal
Duration	Short term – Systemic effects - General population

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
DNEL	24.48 mg/m³
Route of exposure	Inhalation
Duration	Short term – Systemic effects - Workers

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
DNEL	2.77 mg/kg
Route of exposure	Dermal
Duration	Short term – Systemic effects - Workers

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
DNEL	3,5 mg/m³
Route of exposure	Inhalation
Duration	Short term – Systemic effects - Workers

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
DNEL	1 mg/kgbw/day
Route of exposure	Dermal
Duration	Short term – Systemic effects - Workers

Product/substance	Carbon black
DNEL	0.06 mg/m³
Route of exposure	Inhalation
Duration	Short term – Systemic effects - General population

Product/substance	Carbon black
DNEL	1.75 mg/m³
Route of exposure	Inhalation
Duration	Short term – Local effects - General population

Product/substance	Carbon black
DNEL	2 mg/m³
Route of exposure	Inhalation

Duration	Short term – Systemic effects - Workers

Product/substance	Carbon black
DNEL	2 mg/m³
Route of exposure	Inhalation
Duration	Short term – Local effects - Workers

PNEC

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
PNEC	0,00092 mg/L
Route of exposure	Freshwater
Duration of Exposure	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
PNEC	0,0285 mg/kg
Route of exposure	Soil
Duration of Exposure	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
PNEC	0,145 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
PNEC	0,0145 mg/kg
Route of exposure	Marine water sediment
Duration of Exposure	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
PNEC	2 mg/L
Route of exposure	Activated Sludge Plant
Duration of Exposure	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
PNEC	0,000092 mg/L
Route of exposure	Marine water
Duration of Exposure	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
PNEC	0,00704 mg/L
Route of exposure	Intermittent release
Duration of Exposure	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
PNEC	0.0015 mg/L
Route of exposure	Freshwater
Duration of Exposure	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
PNEC	0.00243 mg/kg
Route of exposure	Marine water sediment

Duration of Exposure	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
PNEC	0.00015 mg/L
Route of exposure	Marine water
Duration of Exposure	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
PNEC	0.00397 mg/kg
Route of exposure	Soil
Duration of Exposure	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
PNEC	2.7 mg/L
Route of exposure	Sewage treatment plant
Duration of Exposure	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
PNEC	0.0243 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
PNEC	0,0557 mg/kg
Route of exposure	Soil
Duration of Exposure	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
PNEC	0,00353 mg/L
Route of exposure	Freshwater
Duration of Exposure	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
PNEC	0,029 mg/kg
Route of exposure	Marine water sediment
Duration of Exposure	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
PNEC	0,00353 mg/L
Route of exposure	Marine water
Duration of Exposure	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
PNEC	0,0353 mg/L
Route of exposure	Intermittent release
Duration of Exposure	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
PNEC	0,29 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
PNEC	0,0557 mg/kg
Route of exposure	Soil
Duration of Exposure	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
PNEC	0,00353 mg/L
Route of exposure	Freshwater
Duration of Exposure	

Product/substance	Carbon black
PNEC	5 mg/L
Route of exposure	Marine water
Duration of Exposure	

Product/substance	Carbon black
PNEC	5 mg/L
Route of exposure	Freshwater
Duration of Exposure	

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Do not recirculate outlet air that contain the substances.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards	
A	Class 1 (low capacity)	Brown	EN14387	

Respiratory protection is not needed in the event of adequate ventilation

Skin protection

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn	-	-	

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0.4	> 480	EN374-2, EN374-3, EN388	

Eye protection

Type	Standards	
Safety glasses with side shields.	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Liquid

Colour
Black

Odour / Odour threshold
Sharp/pungent

pH
Testing not relevant or not possible due to nature of the product.

Density (g/cm³)
Testing not relevant or not possible due to nature of the product.

Kinematic viscosity
10-30 centistokes (25.00 °C)

Particle characteristics
Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)
Testing not relevant or not possible due to nature of the product.

Softening point/range (waxes and pastes) (°C)
Does not apply to liquids.

Boiling point (°C)
Testing not relevant or not possible due to nature of the product.

Vapour pressure
Testing not relevant or not possible due to nature of the product.

Relative vapour density
Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)
Testing not relevant or not possible due to nature of the product.

Data on fire and explosion hazards

Flash point (°C)

>100 °C

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Testing not relevant or not possible due to nature of the product.

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/substance	3sixty Black Ink
Test method	
Species	
Route of exposure	Oral
Test	
Result	2736 mg/kgbw
Other information	Calculated

Product/substance	3sixty Black Ink
Test method	
Species	
Route of exposure	Dermal
Test	
Result	2513 mg/kgbw
Other information	Calculated

Product/substance	Acrylic Monomer Blend
Test method	

Species	Rat
Route of exposure	Oral
Test	LD50
Result	>2000 mg/kgbw
Other information	

Product/substance	Acrylic Monomer Blend
Test method	
Species	Rat
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kgbw
Other information	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	4350 mg/kgbw
Other information	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	>3000 mg/kgbw
Other information	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	>5000 mg/kgbw
Other information	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	3650 mg/kgbw
Other information	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	>2000 mg/kg

Other information

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Test method	
Species	Rat
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kg
Other information	

Product/substance	Photoinitiator blend
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	>2000 mg/kgbw
Other information	

Product/substance	Photoinitiator blend
Test method	
Species	Rat
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kgbw
Other information	

Product/substance	Carbon black
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	>8000 mg/kgbw
Other information	

Product/substance	Lactam
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	1114 mg/kgbw
Other information	

Product/substance	Lactam
Test method	
Species	Rat
Route of exposure	Dermal
Test	LD50
Result	1700 mg/kg
Other information	

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

May damage fertility or the unborn child.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Long term effects

Reproductive toxicity: This product contains teratogenic substances, which may produce anomalies and/or developmental defects to the human offspring. Adverse effects include: death, growth retardation, congenital disorders, delayed mental development, and functional disorders. This product contains reprotoxic substances, which may harm the reproductive capacity. Adverse effects include: sterility, effects on the sexual function, lowered effective fertility and dysfunctional menstrual cycle.

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

No special

Other information

Carbon black has been classified by IARC as a group 2B carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	Acrylic Monomer Blend
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	42.71 mg/L
Other information	

Product/substance	Acrylic Monomer Blend
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	5.03 mg/L
Other information	

Product/substance	Acrylic Monomer Blend

Test method	
Species	Crustacean
Compartment	
Duration	48 hours
Test	EC50
Result	25.13 mg/L
Other information	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	1.98 mg/L
Other information	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	0.704 mg/L
Other information	

Product/substance	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (Isobornyl Acrylate)
Test method	
Species	Crustacean
Compartment	
Duration	48 hours
Test	EC50
Result	0.092 mg/L
Other information	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	2,3 mg/L
Other information	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	0,38 mg/L
Other information	

Product/substance	hexamethylene diacrylate;hexane-1,6-diol diacrylate
Test method	
Species	Crustacean
Compartment	
Duration	48 hours
Test	EC50
Result	2,7 mg/L
Other information	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	>2.01 mg/L
Other information	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Test method	
Species	Fish
Compartment	
Duration	48 hours
Test	LC50
Result	1.4 mg/L
Other information	

Product/substance	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Test method	
Species	Crustacean
Compartment	
Duration	48 hours
Test	EC50
Result	3.53 mg/L
Other information	

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

No special

12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.
HP 4 - Irritant (skin irritation and eye damage)
HP 5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP 10 – Toxic for reproduction
HP 13 – Sensitising
HP 14 – Ecotoxic
Avoid discharge to lakes, streams, sewers, etc.
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

08 03 12* Waste ink containing dangerous substances

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 - 14.4

This product is within scope of the regulations of transport of dangerous goods.
These substances when carried in single or combination packaging's containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR/IMDG/IATA provided the packaging's meet the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.4 - 4.1.1.8 (ADR, IMDG) / 5.0.2.4.1, 5.0.2.6.1.1, 5.0.2.8 (IATA)

ADR/RID

UN- or ID number	UN proper shipping name	Labels	Packing group	Tunnel restriction code
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylate)	9	III	3 (-)

IMDG

UN- or ID number	UN proper shipping name	Labels	Packing group	EmS
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylate)	9	III	F-A, S-F

MARINE POLLUTANT

Yes

IATA

UN- or ID number	UN proper shipping name	Labels	Packing group
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylate)	9	III

14.5. Environmental hazards

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.
This product contains substances, which may cause adverse long-term effects to the aquatic environment.

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.
People under the age of 18 shall not be exposed to this product.
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.
Must not be used by persons suffering acrylic dermatitis.

Demands for specific education

No specific requirements

SEVESO - Categories / dangerous substances

E1 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 100 tonnes / (upper-tier): 200 tonnes

Additional information

Not applicable

Sources

The Management of Health and Safety at Work Regulations 1999
The Health and Safety at Work etc. Act 1974 Regulations 2013.
Control of Major Accident Hazards (COMAH) Regulations 2015.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.
H312, Harmful in contact with skin.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H332, Harmful if inhaled.
H335, May cause respiratory irritation.
H360, May damage fertility or the unborn child.
H361, Suspected of damaging fertility or the unborn child.
H372, Causes damage to organs through prolonged or repeated exposure.
H400, Very toxic to aquatic life.
H410, Very toxic to aquatic life with long lasting effects.
H411, Toxic to aquatic life with long lasting effects.
H413, May cause long lasting harmful effects to aquatic life.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service

CE = Conformité Européenne
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit.
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)
The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The safety data sheet is validated by

ACG Nyström AB

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en