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Material no.

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME : IGL Coatings™ Ecoclear Aegis AE1

FUNCTION : Anti-corrosion coating COMPANY : Ominent Sdn Bhd

ADDRESS : No.7, Jalan Majistret U1/26, Hicom-Glenmarie Industrial Park, 40150 Shah Alam, Selangor.

PHONE : +60355690980

EMAIL ADDRESS : regulations@iglcoatings.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Physical hazards

Flammable liquid Category 3

Health hazards

Skin Irritation Category 3 Skin sensitisation Category 1 Serious eye damage Category 1

2.2 Label Elements

Regulation (EC) No. 1272/2008





Signal word

Danger

Hazard statements

Flammable liquid and vapour H226 H316 May cause mild skin irritation H317 May cause an allergic skin reaction

H318 Causes serious eye damage

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking.

Keep container tightly closed. P233

Ground/bond container and receiving equipment. P240

P241 Use explosion-proof equipment. P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

Avoid breathing vapours/spray. P261 P264 Wash hand thoroughly after handling.

Contaminated work clothing shall not be allowed out of the workplace. P272 P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352 IF ON SKIN: Wash with plenty of water

P303+P361+P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse

skin with water/shower.

P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see Section 4).

If skin irritation or rash occurs: Get medical help. P333 + P317 P337 + P317 If eye irritation persists: Get medical help.

P362 + P364 Take off contaminated clothing and wash it before reuse.

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P370+P378 In case of fire: use foam/dry chemical/carbon dioxide to extinguish.

P403+P233+P235 Store in a well-ventilated place. Keep container tightly closed and keep cool.

P501 Dispose of contents/container to comply with local, state and federal regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| CAS No. | Chemical Name | Chemical Name | | | |
|------------|--|------------------------|-------------------------|--------|--|
| | EC No. | Index No. | REACH No. | | |
| | Classification accor | ding to Regulation (EC | No. 1272/2008 (CLP) | | |
| CBI | Silicone Epoxy Hybi | rid Resin | | >60% | |
| | Not applicable | Not applicable | Not applicable | | |
| | Skin Sens. 1: H317 | | | | |
| 30583-72-3 | Hydrogenated Bisp | henol A Resin | | 10-30% | |
| | 500-070-7 | Not applicable | Not applicable | | |
| | Skin Sens. 1: H317 | Skin Sens. 1: H317 | | | |
| 123-86-4 | Butyl Acetate | | | 3-5% | |
| | 204-658-1 | Not applicable | 01-2120800352-71-0000 | | |
| | Flam. Liq. 3: H226; S | | | | |
| 2530-83-8 | [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane | | | 1-3% | |
| | 219-784-2 | Not applicable | 01-2119513212-58-0000 | | |
| | Eye Dam. 1: H318 | | | | |
| 5131-66-8 | 3-Butoxypropan-2- | ol | | 1-3% | |
| | 225-878-4 | Not applicable | 01-2119475527-28-0000 |) | |
| | Skin Irr. 2: H315; Eye Irr. 2: H319 | | | | |
| 67-56-1 | Methanol | | | 0.1-1% | |
| | 200-659-6 | Not applicable | 01-2120762095-54-000 | 0 | |
| | Flam. Liq. 2: H225; / | Acute Tox. 3: H301+H3 | 11+H331; STOT SE 1:H370 | | |

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Information

Take off contaminated clothing immediately.

After Inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

After skin contact

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if presence and easy to do. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Wash out mouth with water provided the person is conscious.

Never give anything by mouth to an unconscious person.

In all cases of doubt, or when symptoms persist, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: The following symptoms may occur: Allergic symptoms

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media

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Foam, dry powder, carbon dioxide, water spray.

5.2 Unsuitable extinguishing media

Full water jet.

5.3 Special hazards arising from the substance or mixture

In the event of fire the following can be released: Carbon monoxide, carbon dioxide, silicon dioxide, silica fumes. Can form explosive vapor air mixture. Under certain conditions of combustion traces of other toxic substances cannot be excluded.

5.4 Advise for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.5 Unusual Fire Hazards:

Not known.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment (Refer to section 8).

6.2 Environmental precautions

Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up

Small spills can be flushed with large amounts of water; larger spills should be collected for disposal.

Take up with absorbent material (e.g. sand, kieselguhr, universal binder).

Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

Safe handling: Refer to section 7

Personal protection equipment: Refer to section 8

Disposal: Refer to section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Do not inhale gases/vapours/aerosols.

Avoid contact with eyes and skin.

Use with adequate ventilation.

Advice on protection against fire and explosion

Flammable

Keep container tightly closed and in a well-ventilated place.

Keep away from open flames and hot surfaces. No smoking.

Further information on handling

General protection and hygiene measures: Refer to section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Advice on storage compatibility

Do not store together with food and feeding stuffs.

Further information on storage conditions

Keep the packing dry and well-sealed to prevent contamination.

Recommended storage temperature: 20-25°C.

7.3 Specific end use(s): Refer to section 1.

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8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

| Component | Value type (Form of exposure) | Control parameter | Basis |
|---------------|-------------------------------|----------------------------------|--------|
| | TWA | 150 ppm 713 mg/m ³ | MY PEL |
| Butyl acetate | TWA | 150 ppm | ACGIH |
| | STEL | 200 ppm | ACGIH |
| Methanol | LTEL | 200 ppm, 260 mg/m ³ | EU OEL |

8.2 Exposure Control

8.2.1 General protective and hygienic measures:

Wash hands before breaks and at the end of work. Ensure adequate ventilation. No smoking,

8.2.2 Personal protective equipment:

Respiratory protection:

In the case of vapour formation, use a respirator with an approved filter.

Use self-contained breathing apparatus in high vapour concentration.

Protection of hands:

Wear gloves made of butyl or nitrile rubber. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Eye protection: Safety goggles is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (colour) : Transparent black

Appearance (form) : Liquid

Odour : Solvent odour
Boiling Point : 126 °C (1,013 hPa)
Vapour Pressure : Data not available.
Vapor Density : Data not available
Density : 1.102 g/cm³
Melting Point : Not applicable

Flash Point : 27 °C

pH : Not applicable. Evaporation Rate : No data available.

Solubility in Water : Insoluble (Hydrolysed with water)

10. STABILITY AND REACTIVITY

10.1 Reactivity: Product is stable under normal condition.

10.2 Chemical stability: Product is stable under normal storage condition. Avoid in contact with air and moisture. Hydrolysis might occur when in contact with moisture.

10.3 Possibility of hazardous reactions: Hydrolysis may result in formation of methanol depending on the specific conditions of use.

10.4 Conditions to avoid: Moisture.

10.5 Incompatible materials: Strong oxidizing agents. **10.6 Hazardous decomposition products**: Unknown.

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11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

| The contract of the contract o | | | |
|--|----------|-----------------|--|
| Exposure route | Endpoint | Value | |
| Oral | LD50 | 6200 mg/kg | |
| Inhalation | LC50 | 62.12 mg/L (4h) | |
| Dermal | LD50 | 6580 mg/kg | |

Chronic toxicity: No information available.

Skin corrosion/irritation: May cause skin irritation. **Eye irritation:** May cause serious eye damage.

Respiratory or skin sensitization: May cause skin sensitisation.

Summary of evaluation of the CMR properties: Shall not be classified as a germ cell mutagenic, carcinogenic nor as a

reproductive toxicant.

Specific target organ toxicity – single exposure: No information available. **Specific target organ toxicity – repeated exposure**: No information available.

Aspiration hazard: No information available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Specified substance: Butyl acetate

| Endpoint | Value | Species | Exposure time | Sources |
|-----------|------------------|-----------------------|---------------|---------|
| LC50 | 18 mg/L | Freshwater fish | 96 hours | ECHA |
| EC50/LC50 | 32 – 44 mg/L | Aquatic invertebrates | 48 hours | ECHA |
| NOEC | 23 mg/L | Aquatic invertebrates | 21 days | ECHA |
| EC50 | 397 – 674.7 mg/L | Freshwater algae | 48 hours | ECHA |

Specified substance: [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

| promou substance to (=/s epoxypropoxy/propyrjamine arexysmane | | | | |
|---|----------|-----------------------|---------------|---------|
| Endpoint | Value | Species | Exposure time | Sources |
| LC50 | 45 mg/L | Freshwater fish | 96 hours | ECHA |
| EC50/LC50 | 266 mg/L | Aquatic invertebrates | 48 hours | ECHA |
| NOEC | 82 mg/L | Aquatic invertebrates | 21 days | ECHA |
| EC50 | 288 mg/L | Freshwater algae | 96 hours | ECHA |

Specified substance: 3-butoxypropan-2-ol

| Endpoint | Value | Species | Exposure time | Sources |
|----------|----------|------------------|---------------|---------|
| LC50 | 560 mg/L | Freshwater fish | 96 hours | ECHA |
| NOEC | 560 mg/L | Freshwater algae | 96 hours | ECHA |

Specified substance: Methanol

| Endpoint | Value | Species | Exposure time | Sources |
|----------|--------|------------------|---------------|---------|
| EC50 | 22 g/L | Freshwater algae | 96 hours | ECHA |

12.2 Process of 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

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No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods

Can be burned in chemical incinerator equipped with afterburner and scrubber but exert extra care in igniting as this product is very flammable.

Sewage disposal-related information

Do not empty into drains.

Do not dispose of the emptied container unless the contents have been completely removed and the container has been flushed with a clean neutral solvent and then dried up. Do not dispose the emptied container unlawfully.

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

14. TRANSPORT INFORMATION

14.1 IATA-DGR

UN number : 1263

UN proper shipping name : Paint-related materials

Transport hazard class(es) : 3
Packing group : III
Environmental hazards : No
Special precautions for user : Remarks : -

14.2 IMDG-Code

UN number : 1263

UN proper shipping name : Paint-related materials

Transport hazard class(es) : 3
Packing group : III
Environmental hazards : No
Marine pollutant : No
EmS Code : -

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture US Federal Regulations

US. Toxic Substances Control Act (TSCA)

All chemical substances in this material are included on the TSCA Inventory of Chemical Substances.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Hazardous Substance

This product contains the following substance subject to the CERCLA Hazardous Substance List

ComponentCAS No.Butyl acetate123-86-4Methanol67-56-1

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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Emergency Planning and Community Right-To-Know Act (EPCRA) Section 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

Emergency Planning and Community Right-To-Know Act (EPCRA) Section 313 Toxics Release Inventory (TRI) Reporting

This product contains the following substance subject to the reporting requirements of EPCRA Section 313

Component CAS No. Methanol 67-56-1

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CRF 68.130)

None present or none present in regulated quantities.

US. State Regulation

US. California Proposition 65



Warning: This product can expose you to chemicals including, Methanol, which is known to the State of California to cause reproductive harm.

EU Regulation

EU. Directive 2012/18/EU (SEVESO III) on Major Accident Hazards Involving Dangerous Substances, Annex I:

Not applicable.

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

16. OTHER INFORMATION

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material use in combination with any other materials or any process, unless specified in the test.

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME : IGL Coatings™ Ecoclear Aegis AE2

FUNCTION : Hardener

COMPANY : Ominent Sdn Bhd

ADDRESS : No.7, Jalan Majistret U1/26, Hicom-Glenmarie Industrial Park, Seksyen U1, 40150 Shah Alam,

Selangor.

PHONE : +60355690980

EMAIL ADDRESS : regulations@iglcoatings.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Physical hazards

Flammable liquid Category 4

Health hazards

Acute Toxicity (Oral)

Skin Corrosion

Serious Eye Damage/Eye Irritation

Skin sensitizer

Category 1

Category 1

Category 1

2.2 Label Elements

Regulation (EC) No. 1272/2008



GHS05

Signal word

Danger

Hazard statements

H227 Combustible liquid H302 Harmful if swallowed

H314 Causes severe skin burns and eye irritation

H317 May cause an allergic skin reaction

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P260 Do not breathe mist/vapours/spray.
P264 Wash hand thoroughly after handling

P270 Do not eat, drink or smoke when using this product

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P317 IF SWALLOWED: Get medical help.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P302+P361+P354 IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse

with water for several minutes.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable

for breathing.

P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P316 Get emergency medical help immediately.

P321 Specific treatment (see Section 4).

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| P333+P317 | If skin irritation or rash occurs: Get medical help. |
|-----------|---|
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P370+P378 | In case of fire: Use water spray, alcohol-resistant foam, dry powder or carbon |
| | dioxide to extinguish. |
| P403+P235 | Store in a well-ventilated place. Keep cool |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to comply with local state and federal regulation |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| CAS No. | Chemical Name | | | Quantity | |
|------------|---|----------------|-----------------------|----------|--|
| | EC No. | Index No. | REACH No. | | |
| | Classification according to Regulation (EC) No. 1272/2008 (CLP) | | | | |
| 919-30-2 | Aminosilane | | | 90-100% | |
| | 213-048-4 | Not applicable | 01-2119480479-24-0000 | | |
| | Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317; Eye Dam. 1: H318 | | | | |
| 68299-15-0 | Dioctyltindicarboxylate | | | 3-5% | |
| | 269-595-4 | Not applicable | 01-2120770890-48-0000 | | |
| | STOT SE 2: H371 | | | | |

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Information

Take off contaminated clothing immediately.

After Inhalation

If aerosol or mists are formed: Possible discomfort: Severe irritation of mucous lining (nose, throat, eyes), cough, sneezing, flow of tears.

Move victims into fresh air. If breathing difficulties occur: Keep patient half sitting with upper body raised. Call a physician immediately.

After skin contact

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

With eye held open, rinse thoroughly with water for at least 15 minutes. Continue rinsing with eye rinsing solution. Protect unharmed eye. Remove contact lenses, if presence and easy to do. Call ambulance. (Cue: caustic burn of the eyes). Immediate further treatment in ophthalmologist.

After ingestion

Do NOT induce vomiting. Wash out mouth with water provided the person is conscious. Never give anything by mouth to an unconscious person. Have patient drink plenty of water in small sips.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Therapy as for chemical burn. If substance has been swallowed: Early endoscopy in order to access mucosa lesions in the oesophagus and stomach which may appear. If necessary, suck away leftover substance. Allergic reactions cannot be excluded. Treatment of allergic reaction if necessary.

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media

Water spray, alcohol-resistant foam, dry powder or carbon dioxide.

5.2 Unsuitable extinguishing media

Do NOT use water jet.

5.3 Special hazards arising from the substance or mixture

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Hazardous fumes in fires, specific to product: nitrogen oxides

5.4 Special fire-fighting procedures

Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

5.5 Special protective equipment for fire-fighters

In case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment (Refer to section 8).

Keep out unprotected persons. Ensure adequate ventilation.

6.2 Environmental precautions

Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Fill into marked, sealable containers.

To be disposed of in compliance with existing regulations.

6.4 Reference to other sections

Safe handling: Refer to section 7

Personal protection equipment: Refer to section 8

Disposal: Refer to section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Wear personal protection equipment (Refer to section 8).

Avoid contact with eyes and skin.

Use with adequate ventilation.

Do not breathe vapours or spray mist.

No smoking.

Advice on protection against fire and explosion

Keep container closed when not in use.

Keep away from heat, sparks and flame.

Further information on handling

General protection and hygiene measures: Refer to section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Protect against moisture.

Advice on storage compatibility

Do not store together with food and feeding stuffs.

Further information on storage conditions

Recommended storage temperature: 20-25°C.

7.3 Specific end use(s): Refer to section 1.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits:

Observe national threshold limit values.

Biological Limit Values

No biological exposure limit noted for ingredient(s).

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8.2 Exposure Control

8.2.1 General protective and hygienic measures:

Wash hands before breaks and at the end of work. Ensure adequate ventilation. No smoking.

8.2.2 Personal protective equipment:

Respiratory protection:

Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Protection of hands:

Material: Butyl rubber.

Breakthrough time: >= 480 min Material: Polyvinyl chloride (PVC). Breakthrough time: >= 120 min

Guideline: Source: GESTIS substance database (hazardous substance information system of commercial

professional associations)

Additional information: Selection of protective gloves to meet the requirements if specific workplaces. Suitability for specific workplaces should be clarified with protective glove manufacturers. The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials. Please observe that the daily duration of usage of a chemical protective glove is in practice far shorter due to the many influencing factors (e.g. temperature, mechanical strain on the glove material) than the permeation time determined acc. EN 374.

Eye protection: Close-fitting protective goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (colour) : Colourless to yellowish

Appearance (form) : Liquid
Odour : Amine-like
Boiling Point : 220 °C

Vapour Pressure : 2 Pa (at 20 °C)
Vapor Density : No data available.
Density : 0.95 g/cm³ (at 20 °C)
Melting Point : Not applicable
Flash Point : 80-90 °C
pH : Not applicable
Evaporation Rate : No data available.

Solubility in Water : Not soluble (Decomposition by hydrolysis)

Auto-ignition temperature : 270 °C

Decomposition temperature : >217 °C

Self-ignition temperature : 270 °C

10. STABILITY AND REACTIVITY

- **10.1 Reactivity**: No dangerous reaction known under conditions of normal use.
- 10.2 Chemical stability: Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions: Exothermic reaction with water, organic acids and inorganic acids.
- **10.4 Conditions to avoid**: Keep away from heat and sources of ignition. Protect from moisture.
- 10.5 Incompatible materials: Water, acid and strong oxidant.
- **10.6 Hazardous decomposition products**: Ethanol in case of hydrolysis. Alcohol formed by hydrolysis lower the flashpoint of the product.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

| Exposure route | Endpoint | Value | Species |
|----------------|----------|------------|---------|
| Oral | LD50 | 1536 mg/kg | Rat |

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| | Dermal | LD50 | >2000 mg/kg | Rat |
|--|--------|------|-------------|-----|
|--|--------|------|-------------|-----|

Skin corrosion/irritation: May causes skin corrosion.

Serious eye damage/eye irritation: May causes serious damage to eyes. **Respiratory or skin sensitization:** May causes sensitization by skin.

Summary of evaluation of the CMR properties: Shall not be classified as a germ cell mutagenic, carcinogenic nor as a

reproductive toxicant.

Specific target organ toxicity – single exposure: Shall not be classified as specific target organ toxicity – single

exposure.

Specific target organ toxicity – repeated exposure: Shall not be classified as specific target organ toxicity – repeated

exposure.

Aspiration hazard: Shall not be classified as aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Specified substances: Aminosilane

| Endpoint | Value | Species | Exposure time |
|----------|-----------|---------------------------------------|---------------|
| LC0 | 934 mg/L | Fish (Brachydanio rerio) | 96 hours |
| EC50 | 331 mg/L | Aquatic Invertebrates (Daphnia magna) | 48 hours |
| EC50 | 1000 mg/L | Green algae | 72 hours |
| NOEC | 1.3 mg/L | Green algae | 72 hours |

12.2 Persistence and degradability

Not readily biodegradable.

12.3 Bioaccumulative potential

No data available.

12.4 Partition Coefficient n-octanol/water (log Kow)

No data available

12.5 Mobility in soil

No data available

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods

With respect to local regulations, e.g. dispose of to suitable waste incineration plant.

Contaminated Packaging

Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities. If there is product residue in the emptied container, follow directions for handling on the container's label. Incorrect disposal or reuse of this container is illegal and can be dangerous.

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

14. TRANSPORT INFORMATION

14.1 IATA-DGR

UN number : 1263

UN proper shipping name : Paint-related materials

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Transport hazard class(es) : 8
Packing group : II
Environmental hazards : No

Special precautions for user : No data available.

Remarks : -

14.2 IMDG-Code

UN number : 1263

UN proper shipping name : Paint-related materials

Transport hazard class(es) : 8
Packing group : II
Environmental hazards : No
Marine pollutant : No
EmS Code : -

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture US Federal Regulations

US. Toxic Substances Control Act (TSCA)

All chemical substances in this material are included on the TSCA Inventory of Chemical Substances.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Hazardous Substance List

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Emergency Planning and Community Right-To-Know Act (EPCRA) Section 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

Emergency Planning and Community Right-To-Know Act (EPCRA) Section 313 Toxics Release Inventory (TRI) Reporting

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CRF 68.130)

None present or none present in regulated quantities.

US. State Regulation

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

EU Regulation

EU. Directive 2012/18/EU (SEVESO III) on Major Accident Hazards Involving Dangerous Substances, Annex I:

Not applicable.

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

16. OTHER INFORMATION

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the

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date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material use in combination with any other materials or any process, unless specified in the test.

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME : IGL Coatings™ Ecoclear Aegis Diluent

FUNCTION : Diluent

COMPANY : Ominent Sdn Bhd

ADDRESS : No.7, Jalan Majistret U1/26, Hicom-Glenmarie Industrial Park, 40150 Shah Alam, Selangor.

PHONE : +60378310980

EMAIL ADDRESS : regulations@iglcoatings.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Physical hazards

Flammable liquid Category 3

Health hazards

Specific target organ toxicity – single exposure Category 3

2.2 Label Elements

Regulation (EC) No. 1272/2008



GHS02



GHS07

Signal word

Warning

Hazard statements

H226 Flammable liquid and vapour
H336 May cause drowsiness or dizziness

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof equipment. P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with

water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

P319 Get medical help if you feel unwell.

P370+P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon

dioxide to extinguish.

P403+P233+P235 Store in a well-ventilated place. Keep container tightly closed and keep cool.

P405 Store locked up.

P501 Dispose of contents/container to comply with local, state and federal regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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| CAS No. | Chemical Name | | | Quantity |
|----------|---|----------------|-----------------------|----------|
| | EC No. | Index No. | REACH No. | |
| | Classification according to Regulation (EC) No. 1272/2008 (CLP) | | | |
| 123-86-4 | Butyl acetate | | | >90% |
| | 203-745-1 | Not applicable | 01-2119485493-29-0000 | |
| | Flam. Liq. 3: H226; STOT SE 3: H336 | | | |

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Information

Take off contaminated clothing immediately.

After Inhalation

Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

After skin contact

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

With eye held open, rinse thoroughly with water for at least 15 minutes. Remove contact lenses, if presence and easy to do. Get medical attention.

After ingestion

Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Unsuitable extinguishing media

No information available.

5.3 Special hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Vapour may form explosive mixtures with air. Vapour may travel to source of ignition and flash back.

5.4 Special fire-fighting procedures

No information available.

5.5 Special protective equipment for fire-fighters

Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire-fighting gear.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment (Refer to section 8).

6.2 Environmental precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment.

6.4 Reference to other sections

Safe handling: Refer to section 7

Personal protection equipment: Refer to section 8

Disposal: Refer to section 13

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7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Wear personal protection equipment (Refer to section 8). Ensure adequate ventilation. Avoid ingestion and inhalation. Do not get in eyes, on skin, or on clothing.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparkling tools. Take precautionary measures against static discharges.

Further information on handling

General protection and hygiene measures: Refer to section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Keep away from heat and sources of ignition.

Advice on storage compatibility

Do not store together with food and feeding stuffs.

Further information on storage conditions

Recommended storage temperature: 20-25°C.

7.3 Specific end use(s): Refer to section 1.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits:

| Component | Value type (Form of exposure) | Control parameter | Basis |
|---------------|-------------------------------|----------------------|--------|
| B | TWA | 150 ppm 713 mg/m³ | MY OEL |
| Butyl acetate | TWA | 150 ppm | ACGIH |
| | STEL | 200 ppm | ACGIH |

8.2 Exposure Control

8.2.1 General protective and hygienic measures:

Wash hands before breaks and at the end of work. Ensure adequate ventilation. No smoking.

8.2.2 Personal protective equipment:

Respiratory protection:

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Protection of hands:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Eye protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (colour) : Colourless
Appearance (form) : Liquid
Odour : Sweet
Boiling Point : 126 °C

Vapour Pressure : No data available Vapor Density : No data available. Specific Gravity : 0.881 (at 20 °C)

Melting Point : -90°C Flash Point : 27 °C

pH : Not applicable

Evaporation Rate : 1

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Solubility in Water : Not soluble Auto-ignition temperature : 415 °C

10. STABILITY AND REACTIVITY

10.1 Reactivity: No dangerous reaction known under conditions of normal use.

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: None under normal processing.

10.4 Conditions to avoid: Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials: Strong oxidizing agent, strong acids, strong bases.

10.6 Hazardous decomposition products: Carbon monoxide, carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

| Exposure route | Endpoint | Value | Species | Source |
|----------------|----------|----------------|---------|--------|
| Oral | LD50 | 10760 mg/kg | Rat | ECHA |
| Dermal | LD50 | 14112 mg/kg | Rabbit | ECHA |
| Inhalation | LC50 | >1000 ppm (4h) | Rat | ECHA |

Skin corrosion/irritation: Shall not be classified as skin irritant.

Serious eye damage/eye irritation: Shall not be classified as eye damage or irritant.

Respiratory or skin sensitization: May causes sensitization by skin.

Summary of evaluation of the CMR properties: Shall not be classified as a germ cell mutagenic, carcinogenic nor as a

reproductive toxicant.

Specific target organ toxicity – single exposure: May cause drowsiness or dizziness **Specific target organ toxicity – repeated exposure**: No information available.

Aspiration hazard: No information available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

| Endpoint | Value | Species | Exposure time |
|-----------|------------------|-----------------------|---------------|
| LC50 | 18 mg/L | Freshwater fish | 96 hours |
| EC50/LC50 | 32 – 44 mg/L | Aquatic Invertebrates | 48 hours |
| NOEC | 23 mg/L | Aquatic Invertebrates | 21 days |
| EC50 | 397 – 674.7 mg/L | Freshwater algae | 72 hours |

12.2 Persistence and degradability

Readily biodegradable.

12.3 Bioaccumulative potential

No data available.

12.4 Partition Coefficient n-octanol/water (log Kow)

No data available.

12.5 Mobility in soil

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods

With respect to local regulations, e.g. dispose of to suitable waste incineration plant.

Contaminated Packaging

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Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities. If there is product residue in the emptied container, follow directions for handling on the container's label. Incorrect disposal or reuse of this container is illegal and can be dangerous.

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

14. TRANSPORT INFORMATION

14.1 IATA-DGR

UN number : 1263

UN proper shipping name : Paint-related materials

Transport hazard class(es) : 3
Packing group : III
Environmental hazards : No
Special precautions for user : Remarks : -

14.2 IMDG-Code

UN number : 1263

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Transport hazard class(es) : 3
Packing group : III
Environmental hazards : No
Marine pollutant : No
EmS Code : -

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Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Hazardous Substance List

This product contains the following substance subject to the CERCLA Hazardous Substance List

Component CAS No. Butyl acetate 123-86-4

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Emergency Planning and Community Right-To-Know Act (EPCRA) Section 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

Emergency Planning and Community Right-To-Know Act (EPCRA) Section 313 Toxics Release Inventory (TRI) Reporting

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CRF 68.130)

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US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

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EU Regulation

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15.2 Chemical safety assessment

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