

MATERIAL SAFETY DATA SHEET

1. Identification substance or preparation and of the company

1.1 Product information

1.1.1 Commercial product name

INDOFIL 2900

1.2 Company identification

1.2.1 Manufacturer/supplier

PT LAUTAN WARNA SARI
Blok Muara Ciwidey RT 01/01
Ds. Cilampeni, Kec. Katapang
Bandung 40971
Phone : 62-22-5892556-9
Fax : 62-22-5892554

2. Composition/information on ingredients

2.2 Chemical characterization (preparation)

2.2.1 Description Highly refined white oils, non ionic emulsifiers

2.2.2 Hazardous ingredients

Description	CAS-number	Content (%)	Hazardous warning symbol	Risks

3. Hazard identification

3.1 **Special risks for human beings and the environment**

The product does not have to be identified according to EG-regulations and regulations for dangerous substances
Water endangering preparation

4. First aid measures

4.1 **General recommendations**

Change moistened clothes
Avoid contact with the concentrated product

4.2 **Inhalation**

Consult physician when not feeling well

4.3 **Skin contact**

Cleanse immediately with water and soap if in contact with skin

4.4	Eye contact	Rinse with water or using a eye rinsing bottle with Isogutt-solution for 15 minutes, visit the eye physician
4.5	Ingestion	Do not initiate vomiting Visit physician
4.6	Recommendations for the physician	Show the physician the safety data sheet
5.	<u>Fire-fighting measures</u>	
5.1	Suitable extinguishing media	All extinguishing medias Harmonize fire extinguishing measurement to environment
5.2	Unsuitable extinguishing media	Nothing
5.3	Hazardous thermal decomposition and combustion products	According to fire conditions the formation of health damaging materials cannot be excluded
5.4	Protection of fire fighters	Fire brigadeprotection clothes Use a non recirculation type of breathing protective device
6.	<u>Accidental release measures</u>	
6.1	Personal precautions	Take care of the usual protection measures for chemicals Provide good aeration
6.2	Environmental precautions	Contamination of environment should be avoided Do not let it get into underground or piping systems Do not let it get into surface water/ground water Capture contaminated water and dispose
6.3	Measures in case of spillage	Prevent aerial expansion (e.g. by containing or oil blockings) Sample with liquid binding materials (e.g. Sand, kieselguhr) and collect in container Dispose contaminated material as waste according to point 13
6.4	Additional information	Not necessary
7.	<u>Handling and Storage</u>	
7.1	Handling	
7.1.1	Advice for safe handling	Wear recommended protective equipment Pay attention to safety rules
7.1.2	Protection against fire and explosion	Not necessary

7.2	Storage	
7.2.1	Requirements for storage rooms and containers	Requirements on the storage quality according to WGK:2
7.2.2	Methods for collective storage	Corresponds to storage class: compare point 7.2.4
7.2.3	Additional methods for storage	Keep container tightly closed Provide good aeration Recommended storage temperature: +3°C to +35°C
7.2.4	Storage class (VCI-draft)	10 flammable liquids
8.	<u>Exposure controls and personal protection</u>	
8.1	Additional recommendations for technical equipment of plants	De-aeration and cleaning of exhaust air should be provided
8.2	Occupational exposure limits	
8.2.1	Additional advice	Not necessary The product does not contain components which working place concentration limits, need to be monitored
8.3	Personal protection	
8.3.1	General measures	Avoid contact with eyes and skin Keep away from human food and drinks, and animal fooder Wash your hands before work breaks and when finished work Do not eat, drink, smoke during work
8.3.2	Respiratory protection	Provide good aeration
8.3.3	Hand protection	Rubber gloves
8.3.4	Eye protection	Tight fitting safety glasses
8.3.5	Body protection	Gum apron
9.	<u>Physical and chemical properties</u>	
9.1	Appearance	
9.1.1	Form	Liquid
9.1.2	Colour	Yellow
9.1.3	Odour	Typical
9.2	Safety data	
9.2.1	Changes of the physical state	
9.2.1.1	Boiling range	> 200 °C
9.2.1.2	Melting range	< -10 °C
9.2.2	Flashpoint	> 110 °C
9.2.3	Ignition temperature	n.bek. °C

9.2.4	Auto ignition temperature	No				
9.2.5	Oxidizing properties	No				
9.2.6	Explosive properties	No				
9.2.7	Lower explosion limit	n.a.	%			
9.2.8	Upper explosion limit	n.a.	%			
9.2.9	Vapour pressure	< 0,1	hPa	20	°C	
9.2.10	Density	0,9	g/cm ³	20	°C	DIN 51757
9.2.11	Solubility	misc. 100	g/l	20	°C	Water
9.2.12	pH-value					
	Percentage of the aqueous solution	10%	7 - 8	20	°C	
	of the original product at 20°C	n.g.				
9.2.13	Partition coefficient n-octanol/water (Lg pOW)	n.a.	n-Octanol/Water			
9.2.14	Viscosity	~ 25	mPas	20	°C	DIN 53015
9.2.15	Separation by solvents	No				
9.2.16	Percentage of solvent	---	%			

9.3 Additional recommendation Not necessary

10. Stability and reactivity

10.1 Conditions to be avoided

Vaporisation through open containers
Open flames

10.2 Substances to be avoided Nothing known

10.3 Hazardous decomposition products

Causes	Decomposition products
Fire	Carbon monoxide

10.4 Other data

Not necessary
No decomposition if applied properly

11. Toxicological information

11.1 Acute toxicity

11.1.1 Mammal toxicity

Sort	Value	Unit	Species	Method
LD50	> 2000	mg/kg	Rat	---

(oral)				
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11.1.2 Specific symptoms in experiments with animals No data available

11.1.3 Primary irritation Weak irritating effect on skin and eyes
 11.1.4 Other data Nothing

11.2 Subacute to chronic toxicity

Investigation	Result
Not done	Not known

11.3 Experiences with human beings

11.3.1 Sensitizing ---
 11.3.2 Skin resorption ---
 11.3.3 pregnancy group ---
 11.3.4 Most tolerable limit category ---

11.4 Other data

The product is not harmful to health when handled appropriately and used as prescribed, according to our experience and knowledge
 The use of the product in industry up to now has not shown any negative physiological effects on the personal
 No known sensibilizing effect

12. Ecological information

12.1 Information on elimination and persistence

Guideline	Method	Rate of elimination	Classification
Not checked	---	---	Easy to eliminate

12.1.1 Valuation Elimination is produced partly by biological decomposition, and partly by adsorption and sedimentation processes in activated sludge flakes
 12.1.2 Other data No disturbances of the degradation activity of the activated sludge are to be expected when appropriately introduced in small concentrations in adapted biological clarification plants

12.2 Reaction in the environment

12.2.1 Information on the substances of the product
 12.2.2 Other data No known negative behaviour
 Low potential of accumulation

12.3 Ecotoxic effects

12.3.1 Aquatic toxicity

Sort	Value	Unit	Species	Method
Fish toxicity LC50	> 10	mg/l	Leuciscus idus	OECD 203

- 12.3.2 Additional information Low aquatic toxicity
 12.3.3 Reactions in clarification plants Concentrations found in sewage do not cause disturbances
 12.3.4 Additional information Nothing

- 12.3.5 Inhibition of activated sludge EC50: > 100
 EC in mg/l

- 12.3.6 Other data Do not let it get into surface water/ground water

12.4 Additional information

- 12.4.1 COD n.g. mgO₂/g
 12.4.2 BOD5 n.g. mgO₂/g

- 12.4.3 AOX informations Does not produce an increase of the AOX value in the sewage water

- 12.4.4 Guideline 76/464 EEC

Heavy metal	Percentage of heavy metal
Nothing	---

- 12.4.5 Other data Nothing

13. Disposal considerations

13.1 Product

- 13.1.1 Recommendations for disposal procedures May be deposited according to the local regulations (systematic dump or burning)

- 13.1.2 Waste key number (Germany) with waste designation 12503 fat-, oil- and wax- emulsions

- 13.1.3 Nature of disposal Plants for combustion of special waste which has to be particularly monitored

- 13.1.4 Proof Yes

13.2 Polluted containers

Recommendation	Recommended detergent
Empty totally and clean	Water with addition of cleaning media

- 13.3 Other data Not necessary

14. Transport information

14.1 Land transport ADR/RID and GGVS/GGVE

14.1.1	Class	---
14.1.2	Number / Letter	---
14.1.3	Danger number	---
14.1.4	UN-number	---
14.1.5	Technical designation	---
14.1.6	Further notes	No dangerous load for transport

14.2 Inland navigation

14.2.1	Class	---
14.2.2	Number / letter	---
14.2.3	Category	---
14.2.4	Technical designation	---
14.2.5	UN-number	---
14.2.6	Further notes	Not proofed

14.3 Ship transport IMDG/GGVSee

14.3.1	Class	---
14.3.2	UN-number	---
14.3.3	Packing group	---
14.3.4	EMS-number	---
14.3.5	MFAG	---
14.3.6	Marine pollutant	No
14.3.7	Technical designation	---
14.3.8	Further notes	No dangerous load for transport

14.4 Air transport ICAO-TI and IATA-DGR

14.4.1	Class	---
14.4.2	UN-number	---
14.4.3	Packing group	---
14.4.4	Technical designation	---
14.4.5	Further notes	No dangerous load for transport

15. Regulatory information

15.1 Classification according to EEC directives

15.1.1	Hazard symbol and designation	The product does not have to be identified according to EG-regulations and regulations for dangerous substances
15.1.2	Dangerous component	---
15.1.3	Risk-phrases	Not applicable

15.1.4	Safety-phrases	Not applicable
15.1.5	Special identification signs of specific preparations (acc. to annex of guidelines for mixtures 89/379/EEC)	Not applicable
15.2	National regulations (Germany)	
15.2.1	Advice about occupational limits	Not necessary
15.2.2	Rules for accidents	
15.2.2.1	Materials generating accidents acc. to annex II	
15.2.2.1.1	Name of the chemical acc. to annex II with successive number	Not applicable
15.2.3	Classification for fire hazard	
15.2.3.1	VbF-Class	---
15.2.4	Classification acc. to the technical air direction	
15.2.4.1	TA-air section	3.1.7
15.2.4.2	TA-air class	III
15.2.5	Classification for endangering water (WGK)	2 = hazardous to water (self-assessment)
15.2.6	Other regulations, restrictions and "Verbot" laws	Not applicable
16.	<u>Other information</u>	
16.1	Information	This data sheet has to be accessible to the technical staff all the time

Abbreviations: n.a. = not applicable, n.g. = not examined, n. bek. = not known
Changes to the former edition of the safety data sheet are marked with a black vertical bar on the right side of the page.

The prementioned data are based on today's knowledge and are not a 100% guarantee. Existing laws and regulations are to be considered by the consignee of our product on his own responsibility.



P.T. LAUTAN WARNA SARI
DYESTUFF, CHEMICAL AND MODIFIED STARCH

MATERIAL SAFETY DATA SHEET

1. Identification substance or preparation and of the company

1.1 Product information

1.1.1 Commercial product name

INDOFIL 2900 X

1.1.2 CAS Number MIXTURE

1.2 Company identification

1.2.1 Manufacturer/supplier PT LAUTAN WARNA SARI
Blok Muara Ciwidey RT 01/01
Ds. Cilampeni, Kec. Katapang
Bandung 40971
Phone : 62-22 - 5892554 & 8

2. Composition/information on ingredients

2.2 Chemical characterization (preparation)

2.2.1 Description Highly refined white oils, non ionic emulsifiers

2.2.2 Component CAS Number % volume

- Aromatic Hydrocarbon - < 5

- Paraffinic Hydrocarbon - >50

- White Mineral Oils 8042-47-5

- Stabilizer / 7695-91-2 <50

- Additive 128-37-0

3. Hazard identification

3.1 Special risks for human beings and the environment

The product does not have to be identified according to EG-regulations and regulations for dangerous substances
Water endangering preparation



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4. **First aid measures**
- 4.1 **General recommendations** Change moistened clothes
Avoid contact with the concentrated product
- 4.2 **Inhalation** Consult physician when not feeling well
- 4.3 **Skin contact** Cleanse immediately with water and soap if in contact with skin
- 4.4 **Eye contact** Rinse with water or using a eye rinsing bottle with Isogutt-solution for 15 minutes, visit the eye physician
- 4.5 **Ingestion** Do not initiate vomiting
Visit physician
- 4.6 **Recommendations for the physician** Show the physician the safety data sheet
5. **Fire-fighting measures**
- 5.1 **Suitable extinguishing media** All extinguishing medias
Harmonize fire extinguishing measurement to environment
- 5.2 **Unsuitable extinguishing media** Nothing
- 5.3 **Hazardous thermal decomposition and combustion products** According to fire conditions the formation of health damaging materials cannot be excluded
- 5.4 **Protection of fire fighters** Fire brigadegate protection clothes
Use a non recirculation type of breathing protective device
6. **Accidental release measures**
- 6.1 **Personal precautions** Take care of the usual protection measures for chemicals
Provide good aeration
- 6.2 **Environmental precautions** Contamination of environment should be avoided
Do not let it get into underground or piping systems
Do not let it get into surface water/ground water
Capture contaminated water and dispose
- 6.3 **Measures in case of spillage** Prevent aerial expansion (e.g. by containing or oil blockings)
Sample with liquid binding materials (e.g. Sand, kieselguhr) and collect in container
Dispose contaminated material as waste according to point 13
- 6.4 **Additional information** Not necessary



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7. Handling and Storage

7.1 Handling

- | | | |
|-------|---------------------------------------|--|
| 7.1.1 | Advice for safe handling | Wear recommended protective equipment
Pay attention to safety rules |
| 7.1.2 | Protection against fire and explosion | Not necessary |

7.2 Storage

- | | | |
|-------|---|--|
| 7.2.1 | Requirements for storage rooms and containers | Requirements on the storage quality according to WGK:2 |
| 7.2.2 | Methods for collective storage | Corresponds to storage class: compare point 7.2.4 |
| 7.2.3 | Additional methods for storage | Keep container tightly closed
Provide good aeration
Recommended storage temperature: +3°C to +35°C |
| 7.2.4 | Storage class (VCI-draft) | 10 flammable liquids |

8. Exposure controls and personal protection

8.1 Additional recommendations for technical equipment of plants

De-aeration and cleaning of exhaust air should be provided

8.2 Occupational exposure limits

- | | | |
|-------|-------------------|---|
| 8.2.1 | Additional advice | Not necessary
The product does not contain components which working place concentration limits, need to be monitored |
|-------|-------------------|---|

8.3 Personal protection

- | | | |
|-------|------------------------|--|
| 8.3.1 | General measures | Avoid contact with eyes and skin
Keep away from human food and drinks, and animal fooder
Wash your hands before work breaks and when finished work
Do not eat, drink, smoke during work |
| 8.3.2 | Respiratory protection | Provide good aeration |
| 8.3.3 | Hand protection | Rubber gloves |
| 8.3.4 | Eye protection | Tight fitting safety glasses |
| 8.3.5 | Body protection | Gum apron |



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9. Physical and chemical properties

9.1 Appearance

9.1.1	Form	Liquid
9.1.2	Colour	Yellow
9.1.3	Odour	Typical

9.2 Safety data

9.2.1 Changes of the physical state

9.2.1.1	Boiling range	> 200	°C
9.2.1.2	Melting range	< -10	°C
9.2.2	Flashpoint	> 110	°C
9.2.3	Ignition temperature	n.bek.	°C

9.2.4 Auto ignition temperature No

9.2.5 Oxidizing properties No

9.2.6 Explosive properties No

9.2.7 Lower explosion limit n.a. %

9.2.8 Upper explosion limit n.a. %

9.2.9 Vapour pressure < 0,1 hPa 20 °C

9.2.10 Density 0,9 g/cm³ 20 °C DIN 51757

9.2.11 Solubility misc. 100 g/l 20 °C Water

9.2.12 pH-value
Percentage of the aqueous solution 10% 7 - 8 20 °C

of the original product at 20°C n.g.

9.2.13 Partition coefficient n-octanol/water (Lg pOW) n.a. n-Octanol/Water

9.2.14 Viscosity ~ 25 mPas 20 °C DIN 53015

9.2.15 Separation by solvents No

9.2.16 Percentage of solvent --- %

9.3 Additional recommendation Not necessary



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10. Stability and reactivity

10.1 Conditions to be avoided

Vaporisation through open containers
Open flames

10.2 Substances to be avoided

Nothing known

10.3 Hazardous decomposition products

Causes	Decomposition products
Fire	Carbon monoxide

10.4 Other data

Not necessary
No decomposition if applied properly

11. Toxicological information

11.1 Acute toxicity

11.1.1 Mammal toxicity

Sort	Value	Unit	Species	Method
LD50 (oral)	> 2000	mg/kg	Rat	---

11.1.2 Specific symptoms in experiments with animals

No data available

11.1.3 Primary irritation

Weak irritating effect on skin and eyes

11.1.4 Other data

Nothing

11.2 Subacute to chronic toxicity

Investigation	Result
Not done	Not known

11.3 Experiences with human beings

11.3.1 Sensitizing

11.3.2 Skin resorption

11.3.3 pregnancy group

11.3.4 Most tolerable limit category

11.4 Other data

The product is not harmful to health when handled appropriately and used as prescribed, according to our experience and knowledge
The use of the product in industry up to now has not shown any negative physiological effects on the personal
No known sensibilizing effect



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12. Ecological information

12.1 Information on elimination and persistence

Guideline	Method	Rate of elimination	Classification
Not checked	---	---	Easy to eliminate

- 12.1.1 Valuation Elimination is produced partly by biological decomposition, and partly by adsorption and sedimentation processes in activated sludge flakes
- 12.1.2 Other data No disturbances of the degradation activity of the activated sludge are to be expected when appropriately introduced in small concentrations in adapted biological clarification plants

12.2 Reaction in the environment

- 12.2.1 Information on the substances of the product
- 12.2.2 Other data No known negative behaviour
Low potential of accumulation

12.3 Ecotoxic effects

12.3.1 Aquatic toxicity

Sort	Value	Unit	Species	Method
Fish toxicity LC50	> 10	mg/l	Leuciscus idus	OECD 203

- 12.3.2 Additional information Low aquatic toxicity
- 12.3.3 Reactions in clarification plants Concentrations found in sewage do not cause disturbances
- 12.3.4 Additional information Nothing
- 12.3.5 Inhibition of activated sludge EC50: > 100
EC in mg/l
- 12.3.6 Other data Do not let it get into surface water/ground water

12.4 Additional information

- 12.4.1 COD n.g. mgO₂/g
- 12.4.2 BOD5 n.g. mgO₂/g
- 12.4.3 AOX informations Does not produce an increase of the AOX value in the sewage water
- 12.4.4 Guideline 76/464 EEC

Heavy metal	Percentage of heavy metal
Nothing	---

- 12.4.5 Other data Nothing



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13. Disposal considerations

13.1 Product

- 13.1.1 Recommendations for disposal procedures May be deposited according to the local regulations (systematic dump or burning)
- 13.1.2 Waste key number (Germany) with waste designation 12503 fat-, oil- and wax- emulsions
- 13.1.3 Nature of disposal Plants for combustion of special waste which has to be particularly monitored
- 13.1.4 Proof Yes

13.2 Polluted containers

Recommendation	Recommended detergent
Empty totally and clean	Water with addition of cleaning media

- 13.3 Other data** Not necessary

14. Transport information

14.1 Land transport ADR/RID and GGVS/GGVE

- 14.1.1 Class ---
- 14.1.2 Number / Letter ---
- 14.1.3 Danger number ---
- 14.1.4 UN-number ---
- 14.1.5 Technical designation ---
- 14.1.6 Further notes No dangerous load for transport

14.2 Inland navigation

- 14.2.1 Class ---
- 14.2.2 Number / letter ---
- 14.2.3 Category ---
- 14.2.4 Technical designation ---
- 14.2.5 UN-number ---
- 14.2.6 Further notes Not proofed

14.3 Ship transport IMDG/GGVSee

- 14.3.1 Class ---
- 14.3.2 UN-number ---
- 14.3.3 Packing group ---
- 14.3.4 EMS-number ---
- 14.3.5 MFAG ---
- 14.3.6 Marine pollutant No



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- 14.3.7 Technical designation ---
14.3.8 Further notes No dangerous load for transport

14.4 Air transport ICAO-TI and IATA-DGR

- 14.4.1 Class ---
14.4.2 UN-number ---
14.4.3 Packing group ---
14.4.4 Technical designation ---
14.4.5 Further notes No dangerous load for transport

15. Regulatory information

15.1 Classification according to EEC directives

- 15.1.1 Hazard symbol and designation The product does not have to be identified according to EG-regulations and regulations for dangerous substances
15.1.2 Dangerous component ---
15.1.3 Risk-phrases Not applicable
15.1.4 Safety-phrases Not applicable
15.1.5 Special identification signs Not applicable
of specific preparations (acc. to annex of guidelines for mixtures 89/379/EEC)

15.2 National regulations (Germany)

- 15.2.1 Advice about occupational limits Not necessary
15.2.2 Rules for accidents
15.2.2.1 Materials generating accidents acc. to annex II
15.2.2.1.1 Name of the chemical acc. to annex II with successive number Not applicable
15.2.3 Classification for fire hazard
15.2.3.1 VbF-Class ---
15.2.4 Classification acc. to the technical air direction
15.2.4.1 TA-air section 3.1.7
15.2.4.2 TA-air class III
15.2.5 Classification for endangering water (WGK) 2 = hazardous to water (self-assessment)
15.2.6 Other regulations, restrictions and "Verbot" laws Not applicable



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DYESTUFF, CHEMICAL AND MODIFIED STARCH

16. Other information

16.1 Information

MSDS Creation Date: July 21st, 2022

Abbreviations: n.a. = not applicable, n.g. = not examined, n. bek. = not known

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Existing laws and regulations are to be considered by the consignee of our product on his own responsibility.