



**Sumitomo Bakelite Singapore Pte. Ltd. (Singapore)**

<Air> No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–9	6.6
Temperature	°C	45	30
BOD	mg/L	400	130
COD	mg/L	600	380
Suspended solids	mg/L	400	21
TDS	mg/L	3,000	240
Phenols	mg/L	0.5	0.2
Chloride	mg/L	1,000	64
Sulfate	mg/L	1,000	27
Sulfur	mg/L	1	0.1
Cyanide	mg/L	2	0.02
Detergents	mg/L	30	7
Oil and grease	mg/L	60	1
Caustic alkalinity	mg/L	2,000	Not detectable
Fluorides	mg/L	15	1
Arsenic	mg/L	5	Less than 0.1
Barium	mg/L	10	Less than 0.1
Tin	mg/L	10	Less than 0.1
Iron	mg/L	50	1.2
Beryllium	mg/L	5	Less than 0.1
Boron	mg/L	5	0.3
Manganese	mg/L	10	Less than 0.1
Cadmium	mg/L	1	Less than 0.01
Chromium	mg/L	5	Less than 0.1
Copper	mg/L	5	Less than 0.1
Lead	mg/L	5	Less than 0.1
Mercury	mg/L	0.5	Less than 0.01
Nickel	mg/L	10	Less than 0.1
Selenium	mg/L	10	Less than 0.1
Silver	mg/L	5	Less than 0.1
Zinc	mg/L	10	0.7
Metals (toxic) in total	mg/L	10	1.04

**SNC Industrial Laminates Sdn. Bhd. (Malaysia)**

<Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Exhaust gas combustion unit	SOx	g/m <sup>3</sup> N	0.2	0.050
	NOx	g/m <sup>3</sup> N	2.0	0.008
	Soot and dust	g/m <sup>3</sup> N	0.4	0.230

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.5–9.0	5.5–9.0
BOD	mg/L	50	45
COD	mg/L	100	91
Suspended solids	mg/L	100	35
Phenols	mg/L	1.0	0.16
Temperature	°C	40	30.1
Mercury	mg/L	0.05	Less than 0.001
Cadmium	mg/L	0.02	Less than 0.005
Hexavalent chromium compounds	mg/L	0.05	Less than 0.01
Arsenic	mg/L	0.10	0.08
Cyanide compounds	mg/L	0.10	0.01
Lead	mg/L	0.5	0.12
Trivalent chromium compounds	mg/L	1.0	0.1
Copper	mg/L	1.0	0.58
Soluble manganese	mg/L	1.0	0.23
Nickel	mg/L	1.0	0.01
Tin	mg/L	1.0	0.2
Zinc	mg/L	2.0	1.50
Boron	mg/L	4.0	0.7
Soluble iron	mg/L	5.0	1.74
Chlorine	mg/L	2.0	Less than 0.1
Sulfur	mg/L	0.5	Less than 0.1
Oil and grease	mg/L	10.0	Less than 5

**P.T. Indopherin Jaya (Indonesia)**

<Air> No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–9	6.6–7.8
BOD	mg/L	100	27
COD	mg/L	300	83
Suspended solids	mg/L	100	37
Total nitrogen	mg/L	30	8.8
Phenols	mg/L	1	0.13

**P.T. SBP Indonesia (Indonesia)**

<Air> No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
Temperature	°C	40	32.3
Total dissolved solids	mg/L	4,000	515
Suspended solids	mg/L	400	102
pH	—	5.5–9.5	8.59
Iron	mg/L	10	0.03
Manganese	mg/L	4	0.18
Barium	mg/L	4	Less than 0.1
Copper	mg/L	4	0.0079
Zinc	mg/L	10	0.179
Hexavalent chromium	mg/L	0.2	Less than 0.005
Chromium compounds	mg/L	1	0.0403
Cadmium	mg/L	0.1	0.009
Mercury	mg/L	0.004	Less than 0.001
Lead	mg/L	0.2	0.0235
Tin	mg/L	4	Less than 0.25
Arsenic	mg/L	0.2	Less than 0.15
Selenium	mg/L	0.1	Less than 0.06
Nickel	mg/L	0.4	0.0549
Cobalt	mg/L	0.8	Less than 0.011
Cyanogen	mg/L	0.1	0.007
Hydrogen sulfide	mg/L	0.1	0.159*1
Fluorine	mg/L	4	0.9
Chloride	mg/L	2	Less than 0.01
Ammonium nitrogen	mg/L	2	25.54**2
Nitrate-nitrogen	mg/L	40	1.1
Nitrite-nitrogen	mg/L	2	0.093
BOD	mg/L	200	67.33
COD	mg/L	400	168.32
Methylene blue active substance	mg/L	10	0.358
Phenols	mg/L	1	0.047
Oil and grease	mg/L	10	3.9

\* Regulatory limit: Standards are set by the industrial complex to which the facility belongs.

\*\* Regarding the exceeding of regulatory limits 1 and 2: The authority in charge of the industrial complex has confirmed that hydrogen sulfide and ammonium nitrogen are present only in household water effluent (from kitchen sinks and other sources). There were no problems with the measurements of the final processing facilities owned by the industrial complex. (This plant does not use or dispose of hydrogen sulfide or ammonium nitrogen.) The industrial complex advised that the plant begin to clean the waste effluent conduit, and, as a result, the measurement following the cleaning was below the regulatory limit.

**Sumitomo Bakelite (Taiwan) Co., Ltd. (Taiwan)**

<Air> No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–9	7.3
COD	mg/L	600	152
Suspended solids	mg/L	300	34

**N.V. Sumitomo Bakelite Europe S.A. (Belgium)**

<Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	NOx	mg/m <sup>3</sup> N	425	102

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–9	6.5–8.0
COD	mg/L	136	28
Suspended solids	mg/L	1,000	5
TOC	mg/L	50	Less than 1
Phenols	mg/L	3	Less than 1
Chlorendic acid	mg/L	3	Less than 0.1
Hexachlorocyclopentadiene	mg/L	0.005	Less than 0.005
Monochlorobenzene	mg/L	5	Less than 1
Total nitrogen	mg/L	15	1.2
Total phosphorus	mg/L	3	0.07

## Vyncolit N.V. (Belgium)

### <Air>

Item	Unit	Regulatory limit	Actual measurement
Phenols	mg/m <sup>3</sup> N	20	5.1
Ammonia	mg/m <sup>3</sup> N	35	9.4
Formaldehyde	mg/m <sup>3</sup> N	20	0
Soot and dust	mg/m <sup>3</sup> N	150	22.5

### <Water>

Item	Unit	Regulatory limit	Actual measurement
Zinc	mg/L	1.4	0.725
Copper	mg/L	0.2	0.029
Phenols	mg/L	0.4	0.019
Molybdenum	mg/L	5	16.7*
Total phosphorous	mg/L	14	1.67

\* The measurement increased temporarily as a result of equipment problems. To remedy the situation, the unit was cleaned, and, as a result of testing, improvement has been confirmed.

## Sumitomo Bakelite Europe (Barcelona), S.L.U. (Spain)

### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	SOx	mg/m <sup>3</sup> N	4,300	Not detectable
	NOx	ppm	300	55
	CO	ppm	500	3

### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–10	6.5–8.6
COD	mg/L	1,500	338
Suspended solids	mg/L	750	137
Phenols	mg/L	2	1.25
Conductivity	µs/cm	5,000	3,518
Total chlorine	mg/L	2,000	763
Total sulfide	mg/L	1,000	472
Total phosphorous	mg/L	50	5.35

## Sumitomo Bakelite Vietnam Co., Ltd. (Vietnam)

### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	CO	mg/m <sup>3</sup> N	1,000	20
	NO <sub>2</sub>	mg/m <sup>3</sup> N	1,000	13
	NOx	mg/m <sup>3</sup> N	1,500	21
	SOx	mg/m <sup>3</sup> N	1,000	86
	Soot and dust	mg/m <sup>3</sup> N	400	1

### <Water>

Item	Unit	Regulatory limit	Actual measurement
Temperature	°C	40	29
Odor	—	No odor	No odor
Color	Co-Pt at pH7	20	11
pH	—	6–9	5.5–7.3*
BOD	mg/L	27	29*
Total suspended solids	mg/L	45	47*
COD (Chromium)	mg/L	45	62*
Arsenic	mg/L	0.045	0.0286
Mercury	mg/L	0.0045	0.0014
Lead	mg/L	0.09	0.0416
Cadmium	mg/L	0.0045	0.0063*
Copper	mg/L	1.8	0.549
Zinc	mg/L	2.7	0.313
Nickel	mg/L	0.18	0.263*
Manganese	mg/L	0.45	0.07
Iron	mg/L	0.9	0.596
Tin	mg/L	0.18	0.08
Hexavalent chromium	mg/L	0.045	0.009
Trivalent chromium	mg/L	0.18	0.092
Cyanogen	mg/L	0.063	0.069*
Ammonium nitrogen	mg/L	4.5	3.978
Phenols	mg/L	0.09	0.089
Mineral oil	mg/L	4.5	1
Animal and plant oils	mg/L	9	4.6
Sulfated compounds	mg/L	0.18	0.392*
Total nitrogen	mg/L	13.5	12.778
Total phosphorus	mg/L	3.6	0.77
Residual chlorine	mg/L	0.9	2.12*
Fluoride compounds	mg/L	4.5	0.84
Chlorides	mg/L	450	1,010*
Coliform bacteria	MNP/100ml	2,700	1,300

\* Beginning in 2008, there were changes in both items for regulation and regulatory limits, and the measures to be taken for a portion of the items that did not qualify are still under consideration. Since water effluent is disposed of in public waters after it is processed in the regulating pond of the industrial complex, measurements of the effluent from the regulating pond are below the regulatory limits. Water effluent in the unprocessed state is not discharged into the external environment.

## Durez Corporation (Kenton Plant) (U.S.A.)

### <Air> No relevant facilities

### <Water>

Item	Unit	Regulatory limit	Actual measurement
Phenols	µg/L	20	Less than 10

## Durez Corporation (Niagara Plant) (U.S.A.)

### <Air> No relevant facilities

### <Water>

Item	Unit	Regulatory limit	Actual measurement
Phenols	lbs./day	35	0.142
Drainage volume	million gal./day	0.1	0.083
Suspended solids	lbs./day	75	28
Soluble organic carbon	lbs./day	800	415
Phosphorus	lbs./day	17	0.08
pH	—	5–10	9

## Durez Canada Co., Ltd. (Fort Erie Plant) (Canada)

### <Air> No measurement data

### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6.0–10.5	7.5–10.2
Suspended solids	mg/L	350	18–87
Phenols	mg/L	1.0	Less than 1.0

## Sumitomo Bakelite Macau Co., Ltd. (China)

### <Air> No measurement data

### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–9	7.0–8.4
BOD	mg/L	40	139*1
COD	mg/L	150	293*1
Total suspended solids	mg/L	60	18
Oil and grease	mg/L	15.0	10
Phenols	mg/L	0.5	9.5*1
Lead	mg/L	1.0	Less than 0.005
Aluminum	mg/L	10.0	Less than 3
Arsenic	mg/L	1.0	Less than 0.01
Cadmium	mg/L	0.2	Less than 0.05
Copper	mg/L	1.0	Less than 0.1
Iron	mg/L	2.0	0.42
Manganese	mg/L	2.0	0.174
Mercury	mg/L	0.05	Less than 0.001
Zinc	mg/L	5.0	0.468
Nickel	mg/L	2.0	Less than 0.2
Selenium	mg/L	0.5	Less than 0.01
Carbon compounds	mg/L	1.0	1.57*1
Hexavalent chromium	mg/L	0.1	Less than 0.02
Chromium	mg/L	2.0	Less than 0.001
Sulfide	mg/L	1.0	Less than 0.1
Sulfate	mg/L	2,000	36
Subsulfate	mg/L	1.0	Less than 2.0*2
Phosphorus	mg/L	10.0	0.6
Ammonia	mg/L	10.0	3.79
Cyanide compounds	mg/L	0.5	Less than 0.2
Total nitrogen	mg/L	15.0	8
Nitrate	mg/L	50.0	0.91
Detergents	mg/L	2.0	Less than 0.5
Acetaldehyde	mg/L	1.0	—*3
HCH	mg/L	2.0	Less than 0.002
DDT	mg/L	0.2	Less than 0.002
PCP	mg/L	1.0	Less than 0.01
HCB	mg/L	1.0	Less than 0.004
HCBd	mg/L	1.5	Less than 0.002
CBNET	mg/L	1.5	Less than 0.005
Chloroform	mg/L	1.0	Less than 0.2
Tetrachloroethylene	mg/L	1.5	Less than 0.005
Aldrin	ug/L	2.0	Less than 0.5
Endrin	ug/L	2.0	Less than 0.5
Dieldrin	ug/L	2.0	Less than 0.5
Isodrin	ug/L	2.0	0
Heavy metals	mg/L	5.0	—*4
Agricultural chemicals	pg/L	0.5	—*4

\*1 This measurement resulted from malfunctioning of the water effluent pipe. Remedial measures have already been completed.

\*2 The capabilities of the current company conducting the measurements are inadequate in comparison with the environmental quality standard. A request has been made for improvement in measurement accuracy.

\*3 Following a change in the company conducting the measurements, some measurements were omitted unintentionally. We are scheduled to restart these measurements during fiscal 2009.

\*4 We are waiting for a reply regarding whether measurement is possible. In the event that measurement is not possible, we are planning to start using the services of another measuring company.