

ERRATA

ID No.	Chemical Name	CAS	Hazard class	INCORRECT						CORRECT						NOTE
				Classification	Symbol	Signal word	Hazard statement	Precautionary statement	Rationale for the classification	Classification	Symbol	Signal word	Hazard statement	Precautionary statement	Rationale for the classification	
H29-A-006	Disodium octaborate tetrahydrate	12280-03-4	Specific target organ toxicity - Repeated exposure	n/c	n/c	n/c	n/c	n/c	There is no information on this substance itself. There is a description that since all sodium borates exist as boric acid (B(OH) ₃) in a solution at physiological pH, toxic effects are common to all sodium borates (PATTY (6th, 2012)). Therefore, the information of other sodium borates and boric acid is useful. As for humans, in a cross-sectional study of 629 workers (including 26 women) working in a US large scale borax mining and refining plant for five years or more, total dust concentrations (weighted mean) in the workplace were 14.6 mg/m ³ in the anhydrous borax production section, 8.4 mg/m ³ in the shipment section, 4.0 mg/m ³ in the mine and the maintenance section, <u>11.1 mg/m³</u> in the non-production section. With regard to persistent symptoms, the workers were divided into two groups based on the presence or absence of smoking history and then divided into three exposure concentration groups of low (0.9 mg/m ³), medium (4.5 mg/m ³), and high (14.6 mg/m ³). As a result of examination, there was a significantly increased trend of cough, mucus hypersecretion, chronic bronchitis in the nonsmoking workers, and shortness of breath in the workers with a smoking history. Besides, there are reports that the results of pulmonary function examination or chest X-ray examination were not related to the exposure concentration (Environmental Risk Assessment for Chemical Substances Vol.14 (Ministry of the Environment, 2016), EHC 204 (1998)). As for experimental animals, toxicity information on the oral route of disodium tetraborate decahydrate (CAS RN 1303-96-4) and boric acid (CAS RN 10043-35-3) was obtained. In a 60-day repeated oral administration toxicity test with rats given disodium tetraborate decahydrate by feeding, atrophy of the seminiferous tubules was reported in the group dosed at 500 ppm (25 mg/kg/day as boron) (Initial Risk Assessment Report (NITE, CERI, NEDO, 2008)). When this dosage is converted based on boron (B, molecular weight: 10.81) and this substance (Na ₂ B ₈ O ₁₃ ·4H ₂ O, molecular weight: 412.52), it is equivalent to 119.3 mg/kg/day (converted guidance value: 79.5 mg/kg/day) of this substance, which is within the guidance value range for Category 2. In addition, in a 9-week, 13-week or 2-year repeated dose toxicity test with rats or mice given boric acid by feeding, spermatogenesis inhibition, atrophy of the testis and atrophy of the seminiferous tubules were reported in the group dosed at or above 150 mg/kg/day (26.3 mg/kg/day as boron). When this dosage is converted based on boron (B, molecular weight: 10.81) and this substance (Na ₂ B ₈ O ₁₃ ·4H ₂ O, molecular weight: 412.52), it is equivalent to 125.5 mg/kg/day of this substance, which corresponds to "Not classified." Moreover, in a 2-year repeated dose toxicity test with rats dosed by feeding, swelling of the limbs, desquamation, and eyelid inflammation were observed in males and females, and	n/c	n/c	n/c	n/c	n/c	There is no information on this substance itself. There is a description that since all sodium borates exist as boric acid (B(OH) ₃) in a solution at physiological pH, toxic effects are common to all sodium borates (PATTY (6th, 2012)). Therefore, the information of other sodium borates and boric acid is useful. As for humans, in a cross-sectional study of 629 workers (including 26 women) working in a US large scale borax mining and refining plant for five years or more, total dust concentrations (weighted mean) in the workplace were 14.6 mg/m ³ in the anhydrous borax production section, 8.4 mg/m ³ in the shipment section, 4.0 mg/m ³ in the mine and the maintenance section, <u>11.1 mg/m³</u> in the non-production section. With regard to persistent symptoms, the workers were divided into two groups based on the presence or absence of smoking history and then divided into three exposure concentration groups of low (0.9 mg/m ³), medium (4.5 mg/m ³), and high (14.6 mg/m ³). As a result of examination, there was a significantly increased trend of cough, mucus hypersecretion, chronic bronchitis in the nonsmoking workers, and shortness of breath in the workers with a smoking history. Besides, there are reports that the results of pulmonary function examination or chest X-ray examination were not related to the exposure concentration (Environmental Risk Assessment for Chemical Substances Vol.14 (Ministry of the Environment, 2016), EHC 204 (1998)). As for experimental animals, toxicity information on the oral route of disodium tetraborate decahydrate (CAS RN 1303-96-4) and boric acid (CAS RN 10043-35-3) was obtained. In a 60-day repeated oral administration toxicity test with rats given disodium tetraborate decahydrate by feeding, atrophy of the seminiferous tubules was reported in the group dosed at 500 ppm (25 mg/kg/day as boron) (Initial Risk Assessment Report (NITE, CERI, NEDO, 2008)). When this dosage is converted based on boron (B, molecular weight: 10.81) and this substance (Na ₂ B ₈ O ₁₃ ·4H ₂ O, molecular weight: 412.52), it is equivalent to 119.3 mg/kg/day (converted guidance value: 79.5 mg/kg/day) of this substance, which is within the guidance value range for Category 2. In addition, in a 9-week, 13-week or 2-year repeated dose toxicity test with rats or mice given boric acid by feeding, spermatogenesis inhibition, atrophy of the testis and atrophy of the seminiferous tubules were reported in the group dosed at or above 150 mg/kg/day (26.3 mg/kg/day as boron). When this dosage is converted based on boron (B, molecular weight: 10.81) and this substance (Na ₂ B ₈ O ₁₃ ·4H ₂ O, molecular weight: 412.52), it is equivalent to 125.5 mg/kg/day of this substance, which corresponds to "Not classified." Moreover, in a 2-year repeated dose toxicity test with rats dosed by feeding, swelling of the limbs, desquamation, and eyelid inflammation were observed in males and females, and	March, 2020
H29-A-027	2,2,4-Trimethylpentane-1,3-diol monoisobutylate [Texanol]	25265-77-4	Hazardous to the aquatic environment (Acute)	Not classified	n/c	n/c	-	-	n/c	Category 3	n/c	n/c	H402: Harmful to aquatic life	P273: Avoid release to the environment. P501: Dispose of contents/container to ...	n/c	June, 2018
H29-A-027	2,2,4-Trimethylpentane-1,3-diol monoisobutylate [Texanol]	25265-77-4	Hazardous to the aquatic environment (Long-term)	Category 3	n/c	n/c	H412: Harmful to aquatic life with long lasting effects	P273: Avoid release to the environment. P501: Dispose of contents/container to ...	n/c	Not classified	n/c	n/c	-	-	n/c	June, 2018
H29-B-002	Sodium tetraborate	1330-43-4	Specific target organ toxicity - Repeated exposure	n/c	n/c	n/c	n/c	n/c	As for humans, in a cross-sectional study on 629 workers (including 26 women) working in the US large scale borax mining and refining plant for five years or more, total dust concentrations (weighted mean) in the workplace were 14.6 mg/m ³ in the anhydrous borax production section, 8.4 mg/m ³ in the shipment section, 4.0 mg/m ³ in the mine and maintenance section, <u>11.1 mg/m³</u> in the non-production section. With regard to persistent symptoms, the workers were divided into two groups based on the presence or absence of smoking history, and then divided into three exposure concentration groups of low (0.9 mg/m ³), medium (4.5 mg/m ³), and high (14.6 mg/m ³). As a result of examination, there was a significantly increased trend of cough, mucus hypersecretion, chronic bronchitis in the nonsmoking workers, and shortness of breath in the workers with smoking history. Besides, there are reports that the results of pulmonary function examination or chest X-ray examination were not related to the exposure concentration (Environmental Risk Assessment for Chemical Substances Vol.14 (Ministry of the Environment, 2016), EHC 204 (1998)). As for experimental animals, there were no data on this substance (anhydrate) itself, but in a 60-day repeated oral administration toxicity test with rats, atrophy of the seminiferous tubules was reported in the dosed groups at 500 ppm (25 mg/kg/day as Boron) (Initial Risk Assessment Report (NITE, CERI, NEDO, 2008)). When this dosage is converted based on boron (B, molecular weight: 10.81) and this substance (Borax (anhydrous), B ₄ Na ₂ O ₇ , molecular weight: 201.22), 25 mg/kg/day of boron is equivalent to 116.4 mg/kg/day (converted guidance value: 77.6 mg/kg/day) of this substance, which is within the guidance value range for Category 2. As described above, effects on the respiratory organs were observed in humans, and an effect on the testes was observed within the guidance value range for Category 2 in experimental animals, therefore, this substance was classified in Category 1 (respiratory organs), Category 2 (genetic organs (men)).	n/c	n/c	n/c	n/c	n/c	As for humans, in a cross-sectional study on 629 workers (including 26 women) working in the US large scale borax mining and refining plant for five years or more, total dust concentrations (weighted mean) in the workplace were 14.6 mg/m ³ in the anhydrous borax production section, 8.4 mg/m ³ in the shipment section, 4.0 mg/m ³ in the mine and maintenance section, <u>11.1 mg/m³</u> in the non-production section. With regard to persistent symptoms, the workers were divided into two groups based on the presence or absence of smoking history, and then divided into three exposure concentration groups of low (0.9 mg/m ³), medium (4.5 mg/m ³), and high (14.6 mg/m ³). As a result of examination, there was a significantly increased trend of cough, mucus hypersecretion, chronic bronchitis in the nonsmoking workers, and shortness of breath in the workers with smoking history. Besides, there are reports that the results of pulmonary function examination or chest X-ray examination were not related to the exposure concentration (Environmental Risk Assessment for Chemical Substances Vol.14 (Ministry of the Environment, 2016), EHC 204 (1998)). As for experimental animals, there were no data on this substance (anhydrate) itself, but in a 60-day repeated oral administration toxicity test with rats, atrophy of the seminiferous tubules was reported in the dosed groups at 500 ppm (25 mg/kg/day as Boron) (Initial Risk Assessment Report (NITE, CERI, NEDO, 2008)). When this dosage is converted based on boron (B, molecular weight: 10.81) and this substance (Borax (anhydrous), B ₄ Na ₂ O ₇ , molecular weight: 201.22), 25 mg/kg/day of boron is equivalent to 116.4 mg/kg/day (converted guidance value: 77.6 mg/kg/day) of this substance, which is within the guidance value range for Category 2. As described above, effects on the respiratory organs were observed in humans, and an effect on the testes was observed within the guidance value range for Category 2 in experimental animals, therefore, this substance was classified in Category 1 (respiratory organs), Category 2 (genetic organs (men)).	March, 2020
H29-B-039	Formaldehyde	50-00-0	Hazardous to the aquatic environment (Acute)	Category 1	Environment	Warning	H400: Very toxic to aquatic life	P273: Avoid release to the environment. P391: Collect spillage. P501: Dispose of contents/container to ...	n/c	Category 2	-	-	H401: Toxic to aquatic life	P273: Avoid release to the environment. P501: Dispose of contents/container to ...	n/c	December, 2018
H29-B-043	2,3-Epoxypropyl phenyl ether [Phenyl glycidyl ether]	122-60-1	Hazardous to the aquatic environment (Long-term)	Category 3	n/c	n/c	H412: Harmful to aquatic life with long lasting effects	P273: Avoid release to the environment. P501: Dispose of contents/container to ...	n/c	Not classified	n/c	n/c	-	-	n/c	June, 2018
H29-B-049	2,4-Toluene diisocyanate [2,4-Toluene diisocyanate]	584-84-9	Hazardous to the aquatic environment (Acute)	Category 2	n/c	n/c	H401: Toxic to aquatic life	n/c	n/c	Category 3	n/c	n/c	H402: Harmful to aquatic life	n/c	n/c	June, 2018

ID No.	Chemical Name	CAS	Hazard class	INCORRECT						CORRECT						NOTE
				Classification	Symbol	Signal word	Hazard statement	Precautionary statement	Rationale for the classification	Classification	Symbol	Signal word	Hazard statement	Precautionary statement	Rationale for the classification	
H29-B-049	2,4-Toluene diisocyanate [2,4-Toluene diisocyanate]	584-84-9	Hazardous to the aquatic environment (Long-term)	Category 2	Environment	n/c	H411 : Toxic to aquatic life with long lasting effects	P273 : Avoid release to the environment. P391 : Collect spillage. P501 : Dispose of contents/container to ...	n/c	Category 3	-	n/c	H412 : Harmful to aquatic life with long lasting effects	P273 : Avoid release to the environment. P501 : Dispose of contents/container to ...	n/c	June, 2018
H29-B-064	Dichloromethane	75-09-2	Hazardous to the ozone layer	Category 1	Exclamation mark	Warning	H420 : Harms public health and the environment by destroying ozone in the upper atmosphere	P502 : Refer to manufacturer/supplier for information on recovery/recycling	n/c	Classification not possible	-	-	-	-	n/c	May, 2018
H29-B-066	Dibromomethane	74-95-3	Hazardous to the ozone layer	Category 1	Exclamation mark	Warning	H420 : Harms public health and the environment by destroying ozone in the upper atmosphere	P502 : Refer to manufacturer/supplier for information on recovery/recycling	n/c	Classification not possible	-	-	-	-	n/c	May, 2018
H29-B-070	Cyclohexanol	108-93-0	Specific target organ toxicity - Repeated exposure	Category 1 (dust inhalation), Category 2 (heart, liver, kidney, genetic organs (men))	n/c	n/c	H372 : Causes damage to organs through prolonged or repeated exposure (dust inhalation) H373 : May cause damage to organs through prolonged or repeated	n/c	n/c	Category 1 (autonomic nervous system), Category 2 (heart, liver, kidney, genetic organs (men))	n/c	n/c	H372 : Causes damage to organs through prolonged or repeated exposure (autonomic nervous system) H373 : May cause damage to organs through prolonged or	n/c	n/c	July, 2018
H29-B-072	Allyl alcohol	107-18-6	Hazardous to the aquatic environment (Long-term)	Category 1	Environment	Warning	H410 : Very toxic to aquatic life with long lasting effects	P273 : Avoid release to the environment. P391 : Collect spillage. P501 : Dispose of contents/container to ...	n/c	Category 3	-	-	H412 : Harmful to aquatic life with long lasting effects	P273 : Avoid release to the environment. P501 : Dispose of contents/container to ...	n/c	June, 2018
H29-B-102	Bromo(chloro)methane	74-97-5	Hazardous to the ozone layer	Classification not possible	-	-	-	-	n/c	Category 1	Exclamation mark	Warning	H420 : Harms public health and the environment by destroying ozone in the upper atmosphere	P502 : Refer to manufacturer/supplier for information on recovery/recycling	n/c	May, 2018
H29-B-110	Furfural	98-01-1	Hazardous to the aquatic environment (Acute)	Category 2	n/c	n/c	H401 : Toxic to aquatic life	n/c	n/c	Category 3	n/c	n/c	H402 : Harmful to aquatic life	n/c	n/c	June, 2018
H29-B-118	Diisopropylamine	108-18-9	Hazardous to the aquatic environment (Long-term)	Category 2	n/c	-	H411 : Toxic to aquatic life with long lasting effects	n/c	n/c	Category 1	n/c	Warning	H410 : Very toxic to aquatic life with long lasting effects	n/c	n/c	June, 2018
H29-B-119	n-Butylamine	109-73-9	Hazardous to the aquatic environment (Acute)	Category 2	n/c	n/c	H401 : Toxic to aquatic life	n/c	n/c	Category 3	-	-	H402 : Harmful to aquatic life	n/c	n/c	June, 2018