# Chemicals and Product Safety, Logistic Safety

- ISO 26000: Environment -

## ▶ Basic approach

The Hodogaya Chemical Group sets forth a set of internal rules on the use of chemical substances and measures to control the content in products, etc. based on the RC philosophy to ensure environmental conservation, health and safety, and product quality, which forms the basis for all business activities. The aim of these rules is to voluntarily manage chemical substances that are likely to injure human health or impact the global environment across the product lifecycle, from development, manufacturing, transportation, and use to disposal.

#### ► PRTR (Pollutant Release and Transfer Register)

We have implemented the PRTR since 1997 as part of the Japan Chemical Industry Association's voluntary management initiative for chemical substances.

We are also gathering information on the status of release and transfer of PRTR substances under the PRTR Act enacted in 2001.

Through these activities, Hodogaya Chemical keeps track of the chemical substances manufactured or used by the Company that are released in the environment or transferred as waste, and utilizes such information to manage chemical substances.

■ FY2017 release amounts and transfer amounts of PRTR substances



| _          |   | E)/004                                       |              | ,    |           |        |       |  |
|------------|---|--|--------------|------|-----------|--------|-------|--|
| No. (P     | Name of chemical substance                    | FY2017 results (compiled data): unit in tons |              |      |           |        |       |  |
| (PRTR Law) |   | Release amounts Transfer amounts             |              |      |           |        |       |  |
|            |   | Air<br>emission                              | Water bodies | Land | Landfills | Sewage | Waste |  |
| 8          | methyl acrylate                               | 0.00   | 0.00         | 0.00 | 0.00      | 0.00   | 1.90  |  |
| 53         | ethylbenzene                                  | 0.30   | 0.18         | 0.00 | 0.00      | 0.00   | 5.00  |  |
| 71         | ferric chloride                               | 0.00   | 0.00         | 0.00 | 0.00      | 0.00   | 0.00  |  |
| 73         | 1-octanol                                     | 0.00   | 0.00         | 0.00 | 0.00      | 0.00   | 0.02  |  |
| 80         | xylene  | 0.30   | 0.18         | 0.00 | 0.00      | 0.00   | 5.62  |  |
| 87         | chromium and chromium(III) compounds          | 0.00   | 0.00         | 0.00 | 0.00      | 0.00   | 0.80  |  |
| 89         | chloroaniline                                 | 0.00   | 0.00         | 0.00 | 0.00      | 0.00   | 0.00  |  |
| 160        | 3,3'-dichloro-4,4'-<br>diaminodiphenylmethane | 0.00   | 0.00         | 0.00 | 0.00      | 0.00   | 0.03  |  |
| 181        | dichlorobenzene                               | 0.07   | 0.28         | 0.00 | 0.00      | 0.00   | 7.70  |  |
| 232        | N,N-dimethylformamide                         | 0.00   | 0.00         | 0.00 | 0.00      | 0.00   | 13.00 |  |
| 292        | tributylamine                                 | 0.00   | 0.00         | 0.00 | 0.00      | 0.00   | 0.00  |  |
| 296        | 1,2,4-trimethylbenzene                        | 0.02   | 0.00         | 0.00 | 0.00      | 0.00   | 0.03  |  |
| 298        | tolylene diisocyanate                         | 0.00   | 0.00         | 0.00 | 0.00      | 0.00   | 0.48  |  |
| 300        | toluene                                       | 4.40   | 0.00         | 0.00 | 0.00      | 0.00   | 65.10 |  |
|            |   |  | •••••        |      | •         | •      |       |  |

| 8               |  | FY2017 results (compiled data): unit in tons |                 |      |                      |        |        |  |  |
|-----------------|--|--|-----------------|------|----------------------|--------|--------|--|--|
| (PRTR Law)      | Name of chemical<br>substance                    | Re   | lease i         | amou | nts Transfer amounts |        |        |  |  |
|                 |  | Air emission                                 | Water<br>bodies | Land | Landfills            | Sewage | Waste  |  |  |
| 302 naphthalene |  | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 0.00   |  |  |
| 307             | , zirconium dichloride<br>oxide                  | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 0.00   |  |  |
| 342             | . pyridine                                       | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 0.00   |  |  |
| 355             | phthalate  | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 0.72   |  |  |
| 374             | hydrogen fluoride and its<br>water-soluble salts | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 0.00   |  |  |
| 393             | betanaphthol                                     | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 0.00   |  |  |
| 405             | boron compounds                                  | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 0.00   |  |  |
| 407             | , poly(oxyethylene)alky<br>ether(alkyl C=12-15)  | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 0.00   |  |  |
| 411             | formaldehyde                                     | 0.19   | 0.00            | 0.00 | 0.00                 | 0.00   | 2.70   |  |  |
| 415             | methacrylic acid                                 | 0.00   | 0.23            | 0.00 | 0.00                 | 0.00   | 2.70   |  |  |
| 446             | 4,4'-methylenedianiline                          | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 5.00   |  |  |
| 448             | , methylenebis(4,1-phenylene)<br>diisocyanate    | 0.00   | 0.00            | 0.00 | 0.00                 | 0.00   | 0.00   |  |  |
| 453             | molybdenum and its compounds                     | 0.00   | 0.02            | 0.00 | 0.00                 | 0.00   | 0.00   |  |  |
|                 | Grand total                                      | 5.27   | 0.90            | 0.00 | 0.00                 | 0.00   | 110.80 |  |  |
|                 |  |  |                 |      |                      |        |        |  |  |





#### Management of chemicals

From the perspectives of environmental conservation, security and disaster prevention, workplace safety and health, and product safety, we manage chemical substances at the development phase, raw materials procurement phase, manufacturing phase, and use and disposal phases. The chemical substances we manage include controlled substances designated under national and foreign laws and regulations as well as those requested under partner companies' green procurement policies. The substances are categorized into three groups: prohibited substances, release restricted substances, and controlled substances in products.

We use the SAP-EHS Management system to manage our chemical substances. This system provides integrated management of information on all products, raw materials and chemical substances handled by the Hodogaya Chemical Group.

We also ensure that information is provided to our customers promptly, including confirmation of legal compliances with national and foreign laws and regulations, and automatic production of SDS (Safety Data Sheet), product labels, MSDS plus and other safety information in multiple languages.

#### Compliance with global laws and regulations

In addition to the conventional regulations such as TSCA (USA) and REACH (Europe), Asian countries including South Korea and Taiwan are actively enforcing new laws and regulations.

In order for the Hodogaya Chemical Group to expand its business globally, it not only works in close collaboration with foreign affiliate companies and resident offices, but also takes active part in various industry activities to keep track of the latest trends in chemical substance management policies and legislation of other countries so as to be prepared to respond in a timely manner.

We share this legislative information and responses from other countries with the entire Hodogaya Chemical Group.

#### Risk assessment of chemicals

The Hodogaya Chemical Group has formulated procedures for risk assessment to prevent accidents and disasters, has procedures for measures to reduce risks based on the assessment results, has set forth the Risk Assessment Guidelines to clearly identify risks and take precise measures, and implements them on a regular basis.

As a result of the amendments to the Industrial Safety and Health Act in 2016, employers now have an expanded obligation to assess the risk of chemical substances that require the provision of SDS. In response, the Group revised its procedure by separating the "risk assessment of operations" and the "risk assessment of handling chemical substances" to enable clearer identification of risks and more precise measures.

## Initiatives for logistic safety

The Logistic Safety Management Rules set forth basic rules on the prevention of accidents and disasters in the distribution of the Group's products and actions to be taken in the event of an accident or disaster. The aim is to ensure the safety and health of those in the logistics industry and the local residents, and to protect the local environment. The Group takes safety measures, including the issuance of a Yellow Card\* to transport operators indicating actions and reporting information, etc., to enable them to respond appropriately in the event of an accident during the transportation of hazardous substances.

Hodogaya Logistics Co., Ltd. hosts transportation safety councils, SP (Stock Point) meetings and various safety training sessions with subcontracting logistics companies, covering topics on the handling of hazardous substances, chemicals and pharmaceuticals as well as on the distribution of general cargo, low-temperature cargo and all types of products, and conducts safety activities including the sharing of SDS and safety-related information, and carrying of the Yellow Card.

\*A Yellow Card describes the first-aid treatments and measures to prevent the expansion of disasters in the event of an accident during the transportation of hazardous substances.



Yokohama Plant Kanae Otsuka

### Risk assessment of our workplace

My job is to inspect the quality of dyes, and I think you must have the sensibility to detect danger to achieve day-to-day operation safety. To discover and remove or reduce dangers and hazards in the workplace, we compile all the dangerous and hazardous factors that each one of us identifies in the workplace and take measures for those factors that are highly serious or likely to cause harm.

The large quantity knowledge on the danger and hazards in the workplace that we gain through these initiatives are extremely useful in our day-to-day operational safety practices. I also think that sharing with others the risk-related information that each one of us gathers in view of the safety measures is a highly effective way to nurture multitasking personnel in which one person can handle multiple responsibilities.