DRAFT (4/21/2010)

Description of DEQ Focus List Data Table Columns

Chemical Abstract Service Registry Number (CASRN)

Column one in the table *Pollutant Profiles* (Attachment 4) lists unique identifiers for each persistent pollutant. CAS registry numbers are unique numerical identifiers for chemical elements, compounds, polymers, biological sequences, mixtures and alloys. They are also referred to as CAS numbers, CAS RNs or CAS #s. Chemical Abstracts Service (CAS), a division of the American Chemical Society, assigns these identifiers to every chemical that has been described in the literature. The intention of using these numeric identifiers is to make database searches more convenient and accurate, as chemicals often have many names.

Toxicity – ECOSAR Model

ECOSAR is a computerized predictive model that estimates the aquatic toxicity of industrial chemicals. It uses structure activity relationships to estimate a chemical's acute (short-term) toxicity and chronic (long-term or delayed) toxicity to aquatic organisms such as fish, aquatic invertebrates, and aquatic plants. The most recent version (v1.00, 2009) of ECOSAR has been validated as a reasonable estimator of aquatic toxicity for a variety of chemical classes. The ECOSAR chronic value (ChV) is the geometric mean of the lowest-observed and no-observed effect levels and is therefore less than or equal to the lowest LOAEL that would be used if a literature value were available. The lower the number in the toxicity column, the greater the toxicity of the chemical relative to others in the table.

Releases

The numeric data in this column of the table is from Toxic Release Inventory (TRI) reports submitted to the U.S. Environmental Protection Agency (EPA) by Oregon industrial facilities, or from Oregon air emissions inventory data submitted to US EPA's National Air Toxics Assessment (NATA) program. The TRI database contains information reported annually by certain industry groups as well as federal facilities. Each year, companies across a wide range of industries (including chemical, mining, paper, oil and gas industries) that produce more than 25,000 pounds (12.5 tons US) or handle more than 10,000 pounds of a listed toxic chemical must report it to the TRI. It should be noted that not all of the chemicals on the Focus List are included in the TRI or NATA emissions inventory programs. The "nr" designation for TRI data indicates the chemical is reportable under the federal TRI program, but no releases of that chemical were reported in Oregon.

Presence in Oregon

The purpose of this column is to reflect Oregon environmental monitoring detections or human bio-monitoring detections, based on a review of existing databases or literature. The letter codes

in the column refer to specific publications or data sources that document Oregon monitoring detections. The key for these letter codes can be found at the bottom of the spreadsheet.

Storage

Chemical storage data is from the Oregon State Fire Marshal database. This database contains the locations of hazardous material stored in an Oregon. In 1985, the Oregon Legislature passed the Community Right to Know and Protection Act which requires the Office of State Fire Marshal to conduct an annual Hazardous Substance Information Survey (HSIS) of Oregon facilities. The data identifies hazardous substances that are used, stored, manufactured and/or disposed of at business and government sites in Oregon. Facilities are required to provide demographic information and report hazardous substances at or above the reportable quantities. Facilities possessing reportable quantities of hazardous substances are required to report specific information including the chemical name, maximum amount and storage location. DEQ used this information to characterize magnitude based on average storage, rather than maximum storage. For example, average storage of 1000-4999 pounds (~0. 5 – 2.5 tons US) classified as high storage, and average storage of 50-199 pounds (~0.25 – 0.1 tons US) classified as low storage.

Hazardous Waste Generation *(not entered into table as of 4/21/2010)*

Industrial, commercial or institutional facilities in Oregon that generate over 220 pounds (100 kg) of waste per month, or 2.2 pounds (1 kg) of "extremely hazardous waste" per month, are required to submit annual reports summarizing the quantities of various types of hazardous wastes generated for the previous year. This column in the spreadsheet is intended to document the total quantities of compounds on the Focus List generated as hazardous waste in Oregon (if the waste containing that compound is designated as hazardous by federal Resource Conservations and Recovery Act regulations or state hazardous waste regulations)

Use in Oregon

Information regarding amount of use in Oregon is available for a select few Focus List chemicals. While this information does not directly address amount released to the environment, it gives some indication of a chemical's potential magnitude. The only Oregon chemical usage dataset DEQ has identified is the Oregon Pesticide Use Reporting System (PURS). The 1999 Oregon Legislature passed legislation directing the Oregon Department of Agriculture (ODA) to develop and implement a system to collect, organize, and report information on all categories of pesticide use in Oregon.

Uses of Chemical

This column summarizes available information regarding current or historical uses of each pollutant. Information regarding uses provides insight into potential sources. Thus far, the only dataset that been relied on for acquiring information about how chemicals on the Focus List are - or were – used is the U.S. Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profiles. The ATSDR is a United States federal agency that prepares information

about the toxicological properties of chemicals for the Department of Defense (DOD) and the Department of Energy (DOE) on substances related to federal sites.

Sources and Pathways to the Environment

This column summarizes available information about where pollutants containing Focus List chemicals originate, and generally the pathway a pollutant might take to move into and through the environment. Thus far, ATSDR the primary sources and pathways information relied on for the data summary table relied on for source and pathways information are ATSDR toxicological profiles and fact sheets.