

CHAPTER 7. REGULATIONS AND GUIDELINES

Pertinent international and national regulations, advisories, and guidelines regarding glyphosate in air, water, and other media are summarized in Table 7-1. This table is not an exhaustive list, and current regulations should be verified by the appropriate regulatory agency.

ATSDR develops MRLs, which are substance-specific guidelines intended to serve as screening levels by ATSDR health assessors and other responders to identify contaminants and potential health effects that may be of concern at hazardous waste sites. See Section 1.3 and Appendix A for detailed information on the MRLs for glyphosate.

Table 7-1. Regulations and Guidelines Applicable to Glyphosate

| Agency | Description | Information | Reference |
|-------------------------|---|---|--|
| Air | | | |
| EPA | RfC | Not evaluated | IRIS 1989 |
| WHO | Air quality guidelines | No data | WHO 2010 |
| Water & Food | | | |
| EPA | Drinking water standards and health advisories | | EPA 2012d |
| | 1-Day (10-kg child) | 20 mg/L | |
| | 10-Day (10-kg child) | 20 mg/L | |
| | DWEL | 70 mg/L | |
| | National primary drinking water regulations | | EPA 2009b |
| | Maximum Contaminant Level | 0.7 mg/L | |
| | Maximum Contaminant Level Goal | 0.7 mg/L | |
| | RfD | 1.0 mg/kg/day ^a | EPA 2017d |
| WHO | Drinking water quality guidelines | Not established ^b | WHO 2017 |
| FDA | EAFUS | No data ^c | FDA 2013c |
| Cancer | | | |
| HHS | Carcinogenicity classification | No data | NTP 2016 |
| EPA | Carcinogenicity classification | Not likely to be carcinogenic to humans | EPA 2017c , 2017d , 2020 |
| IARC | Carcinogenicity classification | Group 2A ^d | IARC 2017 |
| Occupational | | | |
| ACGIH | TLV | No data | ACGIH 2016 |
| OSHA | PEL (8-hour TWA) for general industry | No data | OSHA 2016b |
| | PEL (8-hour TWA) for shipyards and construction | No data | OSHA 2016c |
| | PEL (8-hour TWA) for construction | No data | OSHA 2016a |

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Table 7-1. Regulations and Guidelines Applicable to Glyphosate

| Agency | Description | Information | Reference |
|---------------------------|-------------------------|-------------|----------------------------|
| NIOSH | REL (up to 10-hour TWA) | No data | NIOSH 2016 |
| Emergency Criteria | | | |
| EPA | AEGLs-air | No data | EPA 2016b |
| DOE | PACs-air | No data | DOE 2018 |

^aEPA's Office of Pesticides Program (OPP) published an interim registration review decision on glyphosate in January 2020, which finalized the Glyphosate Draft Human Health Risk Assessment in Support of Registration Review. The human health risk assessment derived an RfD of 1.0 mg/kg/day based on the same study that ATSDR used for derivation of the acute-duration MRL.

^bGlyphosate and aminomethylphosphonic acid occur in drinking water at concentrations well below those of health concern, so a guideline value was not deemed necessary.

^cThe EAFUS list of substances contains ingredients added directly to food that FDA has either approved as food additives or listed or affirmed as GRAS.

^dGroup 2A: Probably carcinogenic to humans.

ACGIH = American Conference of Governmental Industrial Hygienists; AEGL = acute exposure guideline levels; CFR = Code of Federal Regulations; DOE = Department of Energy; DWEL = drinking water equivalent level; EAFUS = Everything Added to Food in the United States; EPA = Environmental Protection Agency; FDA = Food and Drug Administration; HHS = Department of Health and Human Services; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PAC = Protective Action Criteria; PEL = permissible exposure limit; REL = recommended exposure limit; RfC = inhalation reference concentration; RfD = reference dose TLV = threshold limit values; TWA = time-weighted average; WHO = World Health Organization