



# Health Canada

## Natural Health Products Ingredients Database

### Monograph: Iodine

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### NHPID Name

Iodine ([O'Neil et al. 2006](#))

### Proper Name(s)

Iodine ([Sweetman 2007](#), [O'Neil et al. 2001](#))

### Common Name(s)

Iodine ([Sweetman 2007](#), [O'Neil et al. 2001](#))

### Source Material

- Kelp (species from the order Laminariales) ([Guiry and Guiry 2007](#), [Sweetman 2007](#), [Abbott and Hollenberg 1976](#))
- Potassium iodate ([Sweetman 2007](#), [IOM 2003](#))
- Potassium iodide ([Sweetman 2007](#), [O'Neil et al. 2001](#))
- Sodium Iodide ([Sweetman 2007](#), [O'Neil et al. 2001](#))
- [Fucus vesiculosus \(Whole\)](#) ([Guiry and Guiry 2007](#), [Sweetman 2007](#))

### Route Of Administration

[Oral](#)

### Dosage Form(s)

The acceptable pharmaceutical dosage forms suited to oral administration include, but are not limited to, chewables (e.g. gummies, tablets), caplets, capsules, strips, lozenges, powders or liquids where the dose is measured in drops, teaspoons or tablespoons. This monograph is not intended to include foods or food-like dosage forms such as bars, chewing gums or beverages.

### Use(s) or Purpose(s)

- Statement(s) to the effect of:
- **General**  
A factor in the maintenance of good health ([IOM 2006](#), [IOM 2001](#))
- **Specific**  
Helps in the function of the thyroid gland ([IOM 2006](#), [Shils et al. 2006](#), [IOM 2001](#), [Groff and Gropper 2000](#))
- **Dose-specific**  
**For products providing daily doses of Iodine at or above the Recommended Dietary Allowance (RDA):**  
Helps to prevent iodine deficiency ([IOM 2006](#), [Shils et al. 2006](#), [Groff and Gropper 2000](#))

### Dose(s)

- **Children 1 - 3 years:**

Dose(s): 6 - 133 Micrograms per day ([IOM 2006](#))

- **Children 4 - 8 years:**

Dose(s): 6 - 200 Micrograms per day ([IOM 2006](#))

- **Adolescents 9 - 13 years:**

Dose(s): 6 - 400 Micrograms per day ([IOM 2006](#))

- **Adults and adolescents 14 and over:**

Dose(s): 14 - 800 Micrograms per day ([IOM 2006](#))

- Adults includes pregnant and breastfeeding women.
- Iodine deficiency is rare in North America (IOM 2006)
- The maximum daily dose is based on the Tolerable Upper Intake Level (UL) less average dietary intake (adapted from IOM 2006).
- The minimum daily doses are based on approximately 5% of the highest AI (IOM 2006). See Appendix 1 for definitions and Table 2 in Appendix 2 for AI values.

### Duration of use

No statement is required

### Risk Information

- Statement(s) to the effect of:
- **Caution(s) and Warning(s)**  
No statement is required
- **Contraindication(s)**  
No statement is required
- **Known Adverse Reaction(s)**  
No statement is required

### Non-medicinal ingredients

- Must be chosen from the current Natural Health Products Ingredients Database and must meet

the limitations outlined in the database.

## Specifications

- The finished product must comply with the minimum specifications outlined in the current [NHPD Compendium of Monographs](#).

## References cited

- Abbott IA, Hollenberg GJ. Marine Algae of California. Stanford (CA): Stanford University Press; 1976. [Accessed 2007-07-30]. Available from: <http://www.mbari.org/staff/conn/botany/browns/sarahp/lam.htm>.
- Groff J, Gropper S. Advanced Nutrition and Human Metabolism, 3rd edition. Belmont (CA): Wadsworth/Thomson Learning; 2000.
- Guiry MD, Guiry GM. AlgaeBase version 4.2. Latin binomial. Galway (IRE): World-wide electronic publication, National University of Ireland; 2007. [Accessed 2007-07-04]. Available from: <http://www.algaebase.org>.
- IOM 2001: Institute of Medicine. Panel on Micronutrients, Subcommittees on Upper Reference Levels of Nutrients and Interpretation and Uses of Dietary Reference Intakes, and the Standing Committee on the Scientific Evaluation of Dietary Reference Intakes, Food and Nutrition Board, Institute of Medicine. Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc. Washington (DC): National Academy Press; 2001.
- IOM 2003: Institute of Medicine. Committee on Food Chemicals Codex, Food and Nutrition Board, Institute of Medicine. Food Chemicals Codex, 5th edition. Washington (DC): National Academies Press; 2003.
- IOM 2006: Institute of Medicine. Otten JJ, Pizzi Hellwig J, Meyers LD, editors. Institute of Medicine. Dietary Reference Intakes: The Essential Guide to Nutrient Requirements. Washington (DC): National Academies Press; 2006.
- O'Neil MJ, Smith A, Heckelman PE, Budavari S, editors. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals, 13th edition. Whitehouse Station (NJ): Merck & Co., Inc.; 2001.
- Shils ME, Olson JA, Shike M, Ross AC, Caballero B, Cousins RJ, editors. Modern Nutrition in Health and Disease, 10th edition. Philadelphia (PA): Lippincott Williams & Wilkins; 2006.
- Sweetman SC, editor. Martindale: The Complete Drug Reference, 35th edition. London (UK): Pharmaceutical Press; 2007.

## Appendix

### Appendix 1: Definitions

**Recommended Dietary Allowances (RDA):** The average daily dietary nutrient intake level sufficient to meet the nutrient requirements of nearly all (97-98%) healthy individuals in a particular life stage and gender group (IOM 2006).

**Tolerable Upper Intake Level (UL):** The highest average daily nutrient intake level that is likely to pose no risk of adverse health effects to almost all individuals in the general population. As intake increases above the UL, the potential risk of adverse effects may increase (IOM 2006).

### Appendix 2: RDA Values

The RDA values for iodine are provided below. For the purpose of this monograph, these values are intended to:

- provide targets for setting appropriate supplement dosage levels;

- provide the minimum dose for the use of the dose specific use or purpose: "Helps to prevent iodine deficiency";
- facilitate the optional labelling of % RDA values.

Table 2: Recommended Dietary Allowance values for iodine based on life stage group (IOM 2006)

<b>Life stage group</b>		<b>Iodine (<math>\mu\text{g}/\text{day}</math>)</b>
Children	1-8y	90
Adolescents	9-13y / 14-18y	120 / 150
Adults	$\geq 19$ y	150
Pregnancy	14-50 y	220
Breastfeeding	14-50 y	290

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