

# WINTERGREEN OIL

## SYNONYMS

Extract of wintergreen; Gaultheria procumbens extract; Wintergreen extract; Mountain tea extract; Teaberry; Wintergreen extract (Gaultheria procumbens L.); Wintergreen oil (Gaultheria procumbens L.); Betula oil; Checkerberry oil; Gaultheria oil; Gaultheria procumbens oil; Oil of Wintergreen; FEMA No. 3112, 3113;

## PRODUCT IDENTIFICATION

CAS RN 68917-75-9; 90045-28-6  
EINECS RN 289-888-0  
H.S.CODE 3301.29.6000  
MAJOR COMPONENTS Methyl salicylate  
FORMULA  
MOLE WEIGHT

## PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE yellow to brown liquid  
MELTING POINT  
BOILING POINT 219 - 224 C  
DENSITY 1.175 – 1.185  
SOLUBILITY IN WATER Slightly soluble (soluble in alcohol, paraffin oil, insoluble in propylene glycol)  
pH  
VAPOR DENSITY  
REFRACTIVE INDEX 1.529 – 1.541  
FLASH POINT 85 C

## STABILITY AND REACTIVITY

STABILITY Stable under normal conditions.  
INCOMPATIBLE MATERIALS Strong oxidizing agents, strong reducing agents.  
DECOMPOSITION PRODUCTS Carbon monoxide, Carbon dioxide.  
POLYMERIZATION Has not been reported  
NFPA RATINGS Health: 2, Flammability: 0, Reactivity: 0

## SAFETY

HAZARD NOTES Harmful. Harmful if swallowed. Irritating to eyes and skin.  
EYE Irritating to eyes.  
SKIN Irritating to skin.  
INGESTION May be harmful.  
INHALATION Irritating to respiratory system.  
CHRONIC

## TRANSPORT & REGULATORY INFORMATION

UN NO.  
HAZARD CLASS  
PACKING GROUP  
HAZARD SYMBOL XN  
RISK PHRASES 22-36/38  
SAFETY PHRASES 26-36



# WINTERGREEN OIL

## GENERAL DESCRIPTION

Obtained naturally from betula, sweet birch, or teaberry oil. Present in certain leaves and bark but usually prepared by treating salicylic acid with methanol. Wintergreen extract is used in root beer and wintergreen flavorings for beverages and candy (5,000 ppm). The oil is used for checkerberry, raspberry, teaberry, fruit, nut, root beer, sassafras, spice and wintergreen flavorings for beverages, ice cream, ices, candy, baked goods (1,500 ppm), and chewing gum (3,900 ppm). Wintergreen is a strong irritant. Ingestion of relatively small amounts may cause severe poisoning and death (average lethal dose in children is 10 milliliters and in adults 30 milliliters). Symptoms of poisoning are nausea, vomiting, acidosis, pulmonary edema, pneumonia, and convulsions. Can be fatal. Very irritating to the mucous membranes and skin and can be absorbed rapidly through the skin. Like other salicylates, it has a wide range of interaction with other drugs, including alcohol, antidiabetic medications, Vitamin C, and tranquilizers. (source: <http://food.oregonstate.edu/>)

The volatile oil obtained by distillation and to which all the medicinal qualities are due, contains 99 per cent Methyl Salicylate: other properties are 0.3 of a hydrocarbon, Gaultherilene, and an aldehyde or ketone, a secondary alcohol and an ester. To the alcohol and ester are due the characteristic odour of the oil. The oil does not occur crudely in the plant, but as a nonodorous glucoside, and before distillation, the leaves have to be steeped for twelve to twenty-four hours for the oil to develop by fermentation - a reaction between water and a neutral principle: Gaultherin. ---Medicinal Action and Uses---Tonic, stimulant, astringent, aromatic. Useful as a diuretic and emmenagogue and for chronic mucous discharges. Is said to be a good galactagogue. The oil of Gaultheria is its most important product. It has all the properties of the salicylates and therefore is most beneficial in acute rheumatism, but must be given internally in capsules, owing to its pungency, death from inflammation of the stomach having been known to result from frequent and large doses of it. It is readily absorbed by the skin, but is liable to give rise to an eruption, so it is advisable to use for external application the synthetic oil of Wintergreen, Methyl Salicylate, or oil from the bark of Betula lenta, which is almost identical with oil of Gaultheria. In this form, it is a very valuable external application for rheumatic affections in all chronic forms of joint and muscular troubles, lumbago, sciatica, etc. The leaves have found use as a substitute for tea and as a flavouring for genuine tea. The berries form a winter food for animals, partridges, deer, etc. They have been used, steeped in brandy, to produce a bitter tonic taken in small quantities. The oil is a flavouring agent for tooth powders, liquid dentifrices, pastes, etc., especially if combined with menthol and eucalyptus. (source: <http://www.botanical.com>)

## SALES SPECIFICATION

APPEARANCE	yellow to brown liquid
PURITY	99.0% min
DENSITY	1.175 – 1.185
REFRACTIVE INDEX	1.529 – 1.541

## PACKING

## PRICE

