

## Substance Information Document

**Isoamyl butyrate****1. Substance identity**

Name	Isoamyl butyrate
Synonyms	Isoamyl-n-butyrate Isoamyl butanoate Isopentyl butanoate Isopentyl butyrate 3-Methylbutyl butanoate
IUPAC Name	3-methylbutyl butanoate
CAS	106-27-4

**2. Toxicological information**

The European Food Safety Authority (EFSA) identified isoamyl butyrate as skin, eye, respiratory system irritant and a potential respiratory and skin sensitizer. However, no further information was provided. Isoamyl butyrate was not found to be irritating to the eyes of rabbit (OECD 405) and to skin in the vitro human epidermis model assay (OECD 439). The Research Institute for Fragrance Materials (RIFM) concluded that, “based on the existing data and read-across to isoamyl acetate... isoamyl butyrate does not present a concern for skin sensitisation”.

Isoamyl butyrate is of low acute systemic toxicity following oral or dermal exposure (LD50 oral, rat: 12,210 mg/kg bw and LD50 dermal, rabbit: 5000 mg/kg bw). No acute toxicity inhalation exposure data were identified.

A report by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) states that there were no adverse effects in a 90-day study in which rats were given isoamyl butyrate at a dose of 1000 mg/kg bw/day by oral gavage. The report also states that a NOEL of 10,000 mg/kg food was established in “short-term studies”. These studies were used by JECFA (1980) when setting the acceptable daily intake (ADI).

Isoamyl butyrate does not present a concern for genetic toxicity based on Ames test according to OECD 471 and in vivo micronucleus test according to OECD 474. No carcinogenicity and reproductive and developmental toxicity data were identified.

JECFA	<a href="#">WHO TRS 868</a>
FEMA	<a href="#">ISOAMYL BUTYRATE   FEMA (femaflavor.org)</a>
EFSA	<a href="#">Safety of 31 flavouring compounds belonging to different chemical groups when used as feed additives for all animal species (wiley.com)</a>  <a href="#">Scientific Opinion on the safety and efficacy of branched-chain primary aliphatic alcohols/aldehydes/acids, acetals and esters with</a>

	<a href="#">esters containing branched-chain alcohols and acetals containing branched-chain aldehydes (chemical group 2) when used as flavourings for all animal species (wiley.com)</a>
ECHA – REACH dossier	<a href="#">Registration Dossier - ECHA (europa.eu)</a>
PUBCHEM	<a href="#">Isoamyl butyrate   C9H18O2 - PubChem (nih.gov)</a>
CIR	-
OSHA	-

### 3. Addictiveness and attractiveness

No substance-specific addictiveness or attractiveness data were identified.

SCENIHR	-
EMA	-
PUBMED	-