

Methyl dihydrojasmonate

Botanical Source

Synonyms METHYL-2-PENTYL-3-OXO-1-CYCLOPENTYL ACETATE,HEDIONE,HEDIONE FAB (ex Firmenich),METHYL HYDROJASMONATE

IUPAC Name

CAS Reference 24851-98-7

E Number

Food Legislation

Council of Europe (CoE)	
Number	Comment
-	-

US Food and Drug Administration	
Number	Comment
-	-

Joint FAO/WHO Expert Committee on Food Additives (JECFA)		
Number	ADI	Comment
1898	No Safety concern @ intake	N/A

FEMA	
FEMA No.	Comment
3408	

Natural Occurrence and Use in Food
Used in non-alcoholic beverages, ice cream, ices, baked goods, candy.

Estimated Intake From Food and Drink	
Daily Intake mg/kg/day	FEMA Possible Average Daily
-	0.065

Tobacco Legislation

Tobacco				
Country	Cigarettes	RYO	Cigars	Pipe
Afghanistan				
Algeria				
Argentina				
Australia				
Bahrain				
Brazil				
Burundi				
Canada				
Comoros				
Djibouti				
EEC				
Egypt				
Eritrea				
EU TPD2				
Fiji				
France				
GCC (Bahrain,				
Germany	Y	Y	Y	Y
Hong Kong				
Hungary	Y	Y	Y	Y
Iceland				
Iran				
Iraq				
Jordan				
Kazakhstan				
Kuwait				
Latvia				
Libya				
Macedonia				
Madagascar				

Methyl dihydrojasmonate

Malaysia				
Maldives				
Mexico				
Moldova				
Montenegro				
New Zealand				
Nigeria				
Norway				
Pakistan				
Palestine				
Papua New Guinea				
Rwanda				
Samoa				
Saudi Arabia				
Serbia				
Solomon Island				
Somalia				
Somaliland				
South Sudan				
Sri Lanka				
Sweden				
Switzerland	Y	Y	Y	Y
Syria				
Tunisia				
Turkey				
UK				
United Arab				
Uzbekistan				
Vietnam				

Y=Permitted for use in tobacco products. If use is limited, the maximum permitted level is given.

Tobacco Product related Chemical and Biological Studies

Smoke Chemistry		
Published Source	Level Tested %	Comment
BAT	0.00100	At maximum application level this ingredient is not associated with significant increases in levels of Hoffmann analytes in smoke.

Ames Activity		
Published Source	Level Tested %	Comment
BAT	0.00100	Within the sensitivity and specificity of the system the Ames activity of the cigarette smoke condensate was not increased by the addition of the ingredient.

Micronucleus		
Published Source	Level Tested %	Comment
BAT	0.00100	Within the sensitivity of the in vitro micronucleus assay the activity of the cigarette smoke condensate was not increased by the addition of the ingredient.

Neutral red		
Published Source	Level Tested %	Comment
BAT	0.00100	Within the sensitivity of the test system the in vitro cytotoxicity of the cigarette smoke condensate was not increased by the addition of the ingredient.

Inhalation		
Published Source	Level Tested %	Comment
BAT	0.00100	The results indicate that the addition of the ingredient had no discernible effect on the inhalation toxicity of mainstream smoke.

Mouse Skin Painting		
Published Source	Level Tested %	Comment

Toxicological Data on the Unburnt Ingredient

[+ve positive; -ve, negative; ? equivocal

With, with metabolic activation; without, without metabolic activation

In vitro Studies

Species	Test Conditions	End Point	Results	Reference
Chinese hamster ovary (CHO) cells	Chromosome aberration assay in which cells were treated, in the absence and presence of a metabolic activation system, with methyl dihydrojasmonate in dimethylsulphoxide (DMSO) Dose: 0.0057-0.18 mg/ml –S9; 0.0013-0.04 mg/ml +S9.	Chromosome damage	-ve	Belsito et al, 2012.
Mouse lymphoma L5178Y cells	0.058-0.3 mg/ml Methyl dihydrojasmonate, in dimethylsulphoxide (DMSO), tested in a specific locus mutation test in the absence and presence of a metabolic activation system	Mutation	+ve	Ford et al, 1992
Mouse lymphoma L5178Y tk ^{+/–} cells	0.058-0.3 mg/ml Methyl dihydrojasmonate tested in a forward mutation assay in the absence and presence of a metabolic activation system	Mutation.	+ve	JECFA, 2011
Mouse lymphoma L5178Y tk ^{+/–} cells.	Methyl dihydrojasmonate tested in a forward mutation assay in the absence and presence of a metabolic activation system. Dose: 0.025-0.275 mg/ml –S9; 0.025-0.325 mg/ml +S9	Mutation.	-ve	JECFA, 2011

<i>Salmonella typhimurium</i> , strains TA98, TA100, TA1535, TA1537 and TA1538	Bacterial reverse mutation (Ames) assay in which 0.01–3.3 mg/plate methyl dihydrojasmonate was tested in the absence and presence of a metabolic activation system	Mutation	-ve	JECFA, 2011
<i>Salmonella typhimurium</i> , strains TA98, TA100, TA1535 and TA1537	Bacterial reverse mutation (Ames) assay in which 0.0015–1.5 mg/plate methyl dihydrojasmonate was tested in the absence and presence of a metabolic activation system	Mutation	-ve	JECFA, 2011
<i>Salmonella typhimurium</i> , strains TA98, TA100, TA102, TA1535 and TA1537.	Bacterial reverse mutation (Ames) assay in which 0.015–5 mg/plate methyl dihydrojasmonate was tested in the absence and presence of a metabolic activation system	Mutation.	-ve	JECFA, 2011
<i>Salmonella typhimurium</i> , strains TA98, TA100, TA1535 and TA1537; <i>Escherichia coli</i> , strain WP2 <i>uvrA</i>	Bacterial reverse mutation (Ames) assay in which 0.1–5 mg/plate methyl dihydrojasmonate was tested in the absence and presence of a metabolic activation system	Mutation	-ve	JECFA, 2011

In vivo Studies

Species	Test Conditions	End Point	Results	Reference
Human	25 female volunteers given a 48-hour covered patch test with 20% methyl dihydrojasmonate in petrolatum	Skin irritation	Not irritating.	Ford et al, 1992

Human	In the induction phases of repeated insult patch tests, groups of 100 and 112 volunteers were treated, under 24-hour covered contact, 3 times/week for 3 weeks, with 20% methyl dihydrojasmonate in diethyl phthalate or diethyl phthalate/ethanol; irritation was assessed 24 hours after each patch removal.	Skin irritation	Not irritating.	Scognamiglio et al, 2012
Human.	In the induction phases of a repeated insult patch test, a group of 5 males and 18 females treated, under 24-hour covered contact, 3 times/week for 3 weeks, with 10% methyl dihydrojasmonate in alcohol; irritation was assessed 24 hours after each patch removal	Skin irritation.	Little or no irritation	Scognamiglio et al, 2012
Human.	In the induction phases of a repeated insult patch test, a group of 23 female volunteers treated, under 24-hour covered contact, 3 times/week for 3 weeks, with 2.42% methyl dihydrojasmonate in alcohol; irritation was assessed 24 hours after each patch removal.	Skin irritation	Little or no irritation	Scognamiglio et al, 2012
Rabbit, New Zealand White	A group of 10 animals treated dermally on abraded skin with undiluted test material at 5000 mg/kg bw for 24 hours under covered contact and observed for 14 days	Skin irritation	Slight to moderate oedema and erythema	ECHA; Ford et al, 1992
Rabbit, New Zealand White	A group of 3 animals treated with 0.5 ml of undiluted test material, under covered contact, on the abraded skin for 4 hours and skin reactions read for 72 hours.	Skin irritation	Not irritating	ECHA
Rabbit, New Zealand White	Groups of 7-8 animals treated with 0.5 ml of	Skin irritation	Slight to moderate irritation	Scognamiglio et al, 2012

	undiluted test material, under semi-occlusive contact, for 4 hours and skin reactions read immediately following patch removal and at 24, 48 and 72 hours.			
Rabbit	Groups of 3 animals treated on the abraded and intact skin, under 24-hour covered contact, with 0.5 ml of methyl dihydrojasmonate 10% in alcohol and skin reactions read immediately and 48 hours after patch removal	Skin irritation	Not irritating	Belsito et al, 2012
Guinea-pig, Dunkin-Hartley	Groups of 2 males treated, under covered contact, for 24 hours and skin reactions observed for up to 48 hours. Dose: 25, 50, 75 or 100%	Skin irritation	Not irritating	ECHA
Guinea-pig, Dunkin-Hartley	Groups of 2 males injected intradermally and skin reactions observed for up to 48 hours. Dose: 6.25, 12.5, 25 or 50%.	Skin irritation	Slight irritation at 6.25%, irritation at 12.5% and above.	ECHA
Guinea-pig, GOHI SPF-quality (Himalayan spotted)	A group of 10 male guinea pigs pre-treated with dimethylsulfoxide (DMSO) in ethanol, before application of 0, 15, 25, 50 or 100% methyl dihydrojasmonate in ethanol to the clipped skin on both flanks, one flank being exposed, 30 min later, to UV-A irradiation, the other remaining unexposed; skin sites examined 24, 48 and 72 hours after application; control group of 5 male animals.	Skin irritation, photo-irritation.	Slight irritation at 50% and above; slight photo-irritation at 100%.	ECHA
Rabbit, New Zealand White	0.1 ml of undiluted methyl dihydrojasmonate instilled into the conjunctival sac of the right eye of each of 3 rabbits and ocular damage/irritation assessed approximately 1, 24,	Eye irritation	Slight chemosis in 2 animals (fully reversible within 24 hours) and conjunctivitis in all 3 animals (fully reversible within 48 hours).	ECHA

	48 and 72 hours following treatment			
Rabbit, New Zealand White	A number of eye irritation studies in which 0.01 or 0.1 ml of methyl dihydrojasmonate in Tween 80 was instilled into the eyes of 1-3 rabbits and effects observed for up to 4 days	Eye irritation	At worst, slight corneal opacity or slight transient conjunctival irritation, completely reversible within 1 to 4 days.	Belsito et al, 2012
Rabbit	0.1 ml of methyl dihydrojasmonate in alcohol instilled into the eyes of 3 rabbits and effects observed after 1, 2, 3, 4 and 7 days. Controls received alcohol only	Eye irritation	Conjunctival irritation and discharge; fully reversible by day 7 and similar to effects in the alcohol treated controls.	Belsito et al, 2012
Human	A maximization test in which 25 healthy female volunteers were treated, under 48-hour covered contact for 5 alternate-day periods, with 20% methyl dihydrojasmonate in petrolatum and, after a 10 day rest period, challenged with a further 48-hour covered patch; patch sites pre-treated with sodium lauryl sulphate for 24 hours at induction and for 1 hour at challenge; skin reaction assessed immediately after removal of the challenge patch and at 24 hours thereafter	Skin sensitization	-ve	ECHA; Ford et al, 1992
Human	In a human repeated insult patch test, 100 healthy, volunteers, free of any systemic or dermatological disorder, were treated dermally under covered contact with methyl dihydrojasmonate in diethyl phthalate and skin reactions assessed after 48 and 72 hours.	Skin sensitization	-ve	ECHA
Human	In a human repeated insult patch test, 111 healthy volunteers, free of any systemic or dermatological disorder, were treated	Skin sensitization	-ve	ECHA

	dermally under covered contact with methyl dihydrojasmonate in 75% diethyl phthalate/25% ethanol and skin reactions assessed after 48 and 72 hours			
Human	In a human repeated insult patch test, groups of 23 volunteers were treated dermally with 2.42 or 10% methyl dihydrojasmonate in alcohol	Skin sensitization	-ve	Belsito et al, 2012
Human	Patients with facial melanosis and dermatitis were treated, under covered contact, with 5% methyl dihydrojasmonate in petrolatum using cosmetic products.	Skin sensitization	-ve	Ford et al, 1992
Human	1606 Consecutive fragrance-sensitive patients patch tested with 5% methyl dihydrojasmonate in petrolatum.	Skin sensitization	3 Patients (0.2%) gave positive reactions.	European Commission, 2012
Human	100 Consecutive contact dermatitis patients patch tested with 1 or 5% methyl dihydrojasmonate in petrolatum	Skin sensitization	-ve	European Commission, 2012
Guinea-pig, Dunkin-Hartley	In various maximization tests, groups of 10 animals were induced with a series of 6 intradermal injections of methyl dihydrojasmonate, with and without Freund's complete adjuvant, followed, 6-8 days later, by a 48-hour covered patch application; after a 2-week rest period, up to 5 challenges (24-hour covered contact) were conducted at weekly intervals; reactions were read 24 and 48 hours after patch removal. Induction phase: 1, 2.5 or 5% (intradermal) and 100% (dermal); challenge phase: 40 or	Skin sensitization	At worst, weak sensitization	Scognamiglio et al, 2012

	100%.			
Guinea-pig, Dunkin-Hartley	A maximization test in which groups of 10 animals were induced with a series of 6 intradermal injections followed, after a week, by a 48-hour covered patch application; after a 2-week rest period, 3 challenges with methyl dihydrojasmonate in ethanol (24-hour covered contact) were conducted at weekly intervals; reactions were read 24 and 48 hours after patch removal. Induction phase: 4% (intradermal) and 100% (dermal); challenge phase: 40% for the first two challenges and 20% for the final challenge.	Skin sensitization	Strong sensitization; positive reactions seen in 10/10, 8/10 and 0/10 guinea pigs after 48 hours.	Scognamiglio et al, 2012
Guinea-pig, Hartley	A modified Buehler test in which 10 animals were induced with 10 covered dermal applications of 10% methyl dihydrojasmonate in propylene glycol, administered on alternate days over a 3 week period and challenged after a 2-week rest period	Skin sensitization	-ve	Scognamiglio et al, 2012
Guinea-pig, Dunkin-Hartley	A guinea-pig maximization study in which 10 males were treated intradermally with methyl dihydrojasmonate in paraffin oil followed, 6 days later, by a 48-hour covered dermal application; on day 21, animals were challenged with a 24-hour covered patch test and skin reactions read 48 and 72 hours later; control group of 5 males. Induction phase: 0 or 6.25% for intradermal injection; 0 or 100% for dermal application. Challenge phase: 50 or 100%.	Skin sensitization	-ve	ECHA

Guinea-pig, SPF-quality (Himalayan spotted).	GOHI	A group of 20 male guinea pigs given a single injection of Freund's Complete Adjuvant and physiological saline and treated dermally, with methyl dihydrojasmonate in ethanol, five times over an 11-day period (days 1, 3, 7, 9 and 11), each exposure being followed by UV-B and UV-A irradiations; animals challenged, on each flank, on day 21; one flank was exposed to UV-A irradiation, the other remaining unexposed; skin sites examined 24, 48 and 72 hours after challenge; control group of 10 male animals. Induction: 100%; challenge: 0, 5, 10, 15 or 25%.	Photoallergenicity	-ve	ECHA
Mouse, CBA/J		A local lymph node assay in which groups of 5 female mice (8/control group) were treated dermally, on the ear, for 3 consecutive days, with 0, 1, 5, 10, 20 or 40% methyl dihydrojasmonate in acetone/olive oil; after a 2 days rest period, animals were injected, intravenously with radiolabelled ¹²⁵ I-iododeoxyuridine, the auricular lymph nodes excised approx. 5 hours later and radioactive uptake measured	Skin sensitization	-ve	ECHA
Rat, Sprague-Dawley Crl:CD (SD) IGS BR		5 Male and 5 female rats exposed, nose only, for 4 hours to an aerosol of 4930 mg/m ³ methyl dihydrojasmonate and observed for 14 days.	Mortality, clinical signs of toxicity, body weight and necropsy examination	4-hour LC ₅₀ >4930 mg/m ³ . No deaths; overt signs of toxicity included increased respiratory rate, hunched posture, piloerection, wet fur, red/brown staining around the snout (all fully reversible after day 6).	ECHA
Rat, Wistar		10 Animals treated by oral gavage and observed for 14 days. Dose: 5000 mg/kg bw	Mortality	LD ₅₀ >5000 mg/kg bw. No deaths	ECHA; Ford et al, 1992; Scognamiglio et al, 2012
Rat		Males and females treated orally. Dose:	Mortality	LD ₅₀ >5000 mg/kg bw	JECFA, 2011

	5000 mg/kg bw			
Rat, Sprague–Dawley	2 Males and 2 females treated by oral gavage and observed for 5 days. Dose: 5000 mg/kg bw	Mortality, necropsy examination	LD ₅₀ >5000 mg/kg bw. 1 Female died; pallor of the liver, kidney and spleen seen at necropsy.	Scognamiglio et al, 2012
Rat, Sprague–Dawley	5 Males and 5 females treated by oral gavage and observed for 14 days. Dose: 5000 mg/kg bw	Mortality, clinical signs of toxicity	LD ₅₀ >5000 mg/kg bw. No deaths; signs of toxicity included piloerection, hunched posture, abnormal gait, diarrhoea and increased salivation until day 4; no changes at necropsy	Scognamiglio et al, 2012
Rat, Sprague-Dawley	A range-finding toxicity in which male rats were given a single oral dose of 2000 mg/kg bw methyl dihydrojasmonate	Mortality and clinical signs of toxicity.	LD ₅₀ > 2000 mg/kg bw. No premature deaths and no clinical signs of toxicity	ECHA
Rat, Charles River CD	10 Male and 10 female rats treated by oral gavage with 10 ml/kg bw [about 10,000 m/kg bw] methyl dihydrojasmonate in maize oil and observed for 14 days	Mortality, overt signs of toxicity, necropsy examination	LD ₅₀ >10,000 mg/kg bw. 3 males died; 0 females died; overt signs of toxicity included reduced motor activity, piloerection, diarrhoea, muzzle staining, abdominal bloating, dorsal hair loss, unkempt appearance (all totally reversible after day 7); in the animals which died, external, muzzle and urinogenital staining, dorsal hair loss with occasional encrustations, autolytic changes, cannibalisation, fluid and mucoid gastrointestinal tract contents seen at necropsy.	ECHA
Rat, Sprague-Dawley Crl:CD (SD) BR	5 male and 5 female rats treated by oral gavage with 10 ml/kg bw [about 10,000 mg/kg bw] methyl dihydrojasmonate in corn oil and observed for 14 days	Mortality, body weight, overt signs of toxicity, autopsy examination.	LD ₅₀ <10,000 mg/kg bw. 4 males and 5 females died within 72 hours of treatment; overt signs of toxicity included salivation, diarrhoea, respiratory distress and severe impairment of general conditions; diffuse congestive changes of various organs and severe modifications of the digestive tract (mainly ulcers in the stomach) found at autopsy	ECHA
Rat, Sprague-Dawley Crl:CD (SD) BR	5 Male and 5 female rats treated, via gavage, with 10 ml/kg bw [about 10,000 mg/kg bw] methyl dihydrojasmonate in corn oil and observed for 14 days	Mortality, body weight, overt signs of toxicity and autopsy.	LD ₅₀ 10,000 mg/kg bw. 1 male and 3 females died within 24 hours of treatment; transient reduction in body weight; sedation or hypoactivity, hypothermia, ataxia, shallow breathing, reddish nasal discharge,	ECHA

			piloerection, hunched posture, lacrimation, diarrhoea and chromodacryorrhea (all totally reversible after 7 days); changes in the gastrointestinal tract (congestion and thinning walls in the stomach and, together with catarrhal or catarrhal-hemorrhagic content, in the intestine; congestion of the lungs, thymus, renal medulla and mandibular lymph nodes; paleness of the liver (with accentuated lobular pattern) and spleen (with decreased size)) at necropsy in animals which died	
Rabbit, New Zealand White	10 Animals treated dermally on abraded skin for 24 hours under covered contact and observed for 14 days. Dose: 5000 mg/kg bw	Mortality, body weight, overt signs of toxicity, necropsy.	LD ₅₀ >5000 mg/kg bw. One of the animals died; diarrhoea seen in 4 animals	ECHA; Ford et al, 1992
Mouse, ICR	Groups of 5 or 15 male and 5 or 15 female mice administered a single dose of 280, 560 or 1120 mg/kg bw methyl dihydrojasmonate by intraperitoneal injection.	Mortality, clinical signs of toxicity	NOAEL: 280 mg/kg bw Clinical signs of toxicity at 560 mg/kg bw and above; mortality at 1120 mg/kg bw	JECFA, 2011
Mouse, ICR	Groups of 5 male and 5 female mice given a single intraperitoneal injection of 1200, 1400, 1600 or 1800 mg/kg bw methyl dihydrojasmonate in corn oil and observed for 3 days.	Mortality, clinical signs of toxicity	Lethargy at 1200 mg/kg bw; prostration, crusty eyes and irregular breathing at 1400 mg/kg bw and above; 7/10 animals died at 1400 mg/kg bw and all animals in the top 2 dose groups died	Scognamiglio et al, 2012.
Rat, Sprague-Dawley CD.	A range-finding study in which groups of 2 male and 2 female rats were given a single intraperitoneal injection of 1000 or 2000 mg/kg bw methyl dihydrojasmonate in arachis oil and observed for 48 hours	Mortality, clinical signs of toxicity	Clinical signs of toxicity (hunched posture, lethargy, ataxia, decreased respiratory rate, laboured respiration and splayed gait) at 1000 mg/kg bw and above; 3 of the animals at 2000 mg/kg bw died	Scognamiglio et al, 2012
Rat, Sprague-Dawley	A range-finding study in which groups of 5 males and 5 females were given methyl dihydrojasmonate in the diet at nominal doses of 0, 10, 40, 100 or 400 mg/kg bw/day for 14-days.	Mortality, clinical signs of toxicity, physical and behavioural effects, body weights and food consumption; at study termination, haematological	NOAEL 400 mg/kg bw/day (the highest dose tested). (Other than significant spillage of feed by females in the two highest dose groups, the only treatment-related effect was an up to 8% decrease in body weight gain in these	JECFA, 2011

	(Females in the two highest dose groups displayed significant spillage of feed, so mean daily intake in second highest dose group based on data for three animals only and in the highest dose group could not be determined.)	examinations and clinical chemistry, all animals examined macroscopically; adrenals, brain, epididymides, heart, kidneys, liver, spleen, testes and thymus weighed; liver and tissues with any lesions detected in the gross examination of the controls and the highest dose group examined microscopically	groups when compared with controls.)	
Rat, Sprague-Dawley	Groups of 10 males and 10 females were given methyl dihydrojasmonate in the diet for 90 days; conducted according to OECD test guideline 408 and to GLP. Dose: 0, 10, 50 or 100 mg/kg bw/day	Mortality, clinical signs of toxicity, behaviour, body weight, food intake, water consumption, a functional observational battery, motor activity, ophthalmoscopy, haematology, clinical chemistry, urinalysis, organ weights, and macroscopic and microscopic pathology	NOAEL 100 mg/kg bw/day (the highest dose tested). Slight, statistically significant decrease in mean haematocrit values and statistically significant increase in blood potassium level in all treated male groups (neither dose-related); statistically significant decrease in mean globulin value and statistically significant increase in relative kidney weight in males at the top dose; no treatment-related macroscopic or microscopic findings. It was concluded by the investigators that, as all observed differences were small, occurred in one sex only and were not accompanied by macroscopic or microscopic findings, they were not of toxicological relevance	JECFA, 2011
Rat, Crl:CD(SD)	A range-finding study in which groups of 8 "presumed pregnant" rats were administered methyl dihydrojasmonate in corn oil by oral gavage, on days 7-20 of gestation. Dose: 0, 125, 250, 500 or 1000 mg/kg bw/day	Maternal toxicity	Decreased body weight gain and feed consumption (most pronounced effects on the first 3 days of treatment) at 125 mg/kg bw/day and above; excessive salivation at 250 mg/kg bw/day and above; dehydration and ungroomed appearance at 1000 mg/kg bw/day.	Belsito et al, 2012; JECFA, 2011.
Rat, Sprague-Dawley	Groups of 4 male rats given a single dose of 0, 333 or 1000 mg/kg bw methyl dihydrojasmonate in arachis oil by intraperitoneal	DNA damage	-ve	Belsito et al, 2012; ECHA; JECFA, 2011.

	injection and unscheduled DNA synthesis (UDS) assessed in hepatocytes 2 or 16 hours after injection; control group of 6 animals			
Rat, Crl:CD (SD)	In a dose-finding study, groups of 8 “presumed pregnant” rats were treated by oral gavage on days 7-20 of gestation with 0, 125, 250, 500 or 1000 mg/kg bw/day methyl dihydrojasmonate in corn oil	Maternal and foetal toxicity	LOAEL (maternal and foetal toxicity) 125 mg/kg bw/day (the lowest dose tested). Maternal toxicity (decreased body weight gain and feed consumption) at 125 mg/kg bw/day and above; decreased foetal body weight at 125 mg/kg bw/day at above	Belsito et al, 2012
Rat, Crl:CD(SD)	Groups of 25 “presumed pregnant” rats administered 0, 40, 80 or 120 mg/kg bw/day methyl dihydrojasmonate, in corn oil, by oral gavage on days 7-20 of gestation; all rats sacrificed on gestation day 21 and fetuses delivered by caesarean section	Maternal toxicity (death, clinical signs of toxicity, body weight, food consumption, abortions, premature deliveries, and gross necropsy of the thoracic, abdominal and pelvic viscera); number and distribution of corpora lutea and implantation sites; number of live and dead fetuses; number of early and late resorptions; size, colour and shape of placentas; foetal weight; foetal sex distribution; examination of fetuses for gross external alterations; examination of approximately half of the fetuses/litter for soft tissue alterations; examination of the remaining fetuses for skeletal alterations	NOAEL (maternal toxicity) 80 mg/kg bw/day. NOAEL (developmental toxicity) 120 mg/kg bw/day (the highest dose tested). Maternal toxicity (reduced food consumption and mean body weight, overt signs of toxicity, tan areas in the liver lobes and a pale spleen) occurred at 120 mg/kg bw/day. No treatment-related effects on litter parameters, gross external, soft tissue or skeletal malformations, or differences in ossification sites.	JECFA, 2011

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