



Navy Heart Essential Oils

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IFRA COMPLIANCE DOCUMENT

Lime Essential Oil (Cold Pressed) | IFRA 51st Amendment (June 2023)
Issue Date: May 25, 2026

PRODUCT IDENTIFICATION

Product Name	Lime Essential Oil (Cold Pressed)
Botanical Name	Citrus aurantifolia
INCI Name	Citrus Aurantifolia Peel Oil
CAS Number	8008-26-2
Product Type	Essential Oil — Aromatic
Supplier	Navy Heart Essential Oils, Calgary, Alberta, Canada
IFRA Amendment	51st Amendment to the IFRA Code of Practice (published June 2023)
Document Issue Date	May 25, 2026

IFRA COMPLIANCE STATEMENT

Navy Heart Essential Oils hereby confirms that Lime Essential Oil (cold pressed) is assessed in accordance with the IFRA 51st Amendment to the IFRA Code of Practice (published June 2023). This oil is compliant for use in the product categories listed below at the maximum concentration levels stated.

IMPORTANT — PHOTOTOXICITY: Navy Heart's Lime Essential Oil is cold pressed and contains naturally occurring furocoumarins (psoralens), including bergapten and other phototoxic compounds. Cold-pressed lime has a higher furanocoumarin content than cold-pressed lemon and is considered one of the more significantly phototoxic citrus oils. These compounds can cause severe skin reactions — including burns, blistering, and lasting hyperpigmentation — when treated skin is exposed to UV light. The IFRA 51st Amendment restricts cold-pressed lime oil to a maximum of 0.70% in all leave-on product categories where UV exposure is possible. For rinse-off (soap, shower gel — Categories 7A, 9), home fragrance non-skin-contact (Category 10A), fabric rinse-off (Category 11A), and candles/wax melts (Category 12), there is NO IFRA restriction.

Key restricted constituents (typical composition): Limonene ~45–60% — β -Pinene ~10–15% — γ -Terpinene ~8–15% — α -Terpineol ~2–10% — Furocoumarins (bergapten and other psoralens) — higher furanocoumarin burden than cold-pressed lemon; the 0.70% IFRA limit applies as default where lot-specific bergapten content has not been determined.

IFRA CATEGORY USAGE LIMITS — 51ST AMENDMENT

IFRA Category	Typical Product Applications	Max. Usage Level (51st Amdt.)	Navy Heart Recommended
1	Lip products (lip balm, lipstick, lip gloss, lip scrub)	0.70%	Up to 0.35% — phototoxic concern applies to lips; avoid sun exposure
2	Deodorant & antiperspirant (spray, stick, roll-on)	0.70%	Up to 0.35%
3	Facial makeup, eye products, foundation, blush	0.70%	Up to 0.35% ⚠ Phototoxic — avoid UV exposure
4	Hair leave-on (hair oil, hair serum, scalp treatment)	0.70%	Up to 0.35%
5A	Body leave-on: body lotion, butter, oil, cream	0.70%	Up to 0.35% ⚠ Phototoxic — avoid UV exposure after application
5B	Face leave-on: facial moisturiser, face cream, serum, toner	0.70%	Up to 0.35% ⚠ Phototoxic — do not use before sun exposure
5C	Hand leave-on: hand cream, hand lotion, cuticle cream	0.70%	Up to 0.35% ⚠ Phototoxic — see warning
5D	Baby leave-on: baby lotion, baby oil, baby cream, diaper cream	0.70%	Not recommended for baby products
6	Intimate wipes, feminine hygiene products	0.70%	Up to 0.2%
7A	Rinse-off body: shower gel, body wash, shampoo, bath products	Not Limited	Up to 3%
7B	Rinse-off hair: conditioner, hair mask, hair rinse	0.70%	Up to 0.35%
8	Intimate leave-on with anogenital exposure	0.70%	Not recommended
9	Rinse-off: bar soap, body wash, scrubs, bath bombs	Not Limited	Up to 3%
10A	Home fragrance: reed diffusers, pot pourri, sachets	Not Limited	Up to 10%
10B	Room spray, linen spray, air freshener spray	0.70%	Up to 0.35%
11A	Fabric treatment rinse-off (fabric softener, laundry detergent)	Not Limited	Up to 3%
11B	Fabric treatment leave-on (dryer sheets, pillow spray)	0.70%	Up to 0.35%
12	Non-skin contact: candles, wax melts, incense	Not Limited	Up to 10%

Note: Maximum usage levels are sourced from the IFRA 51st Amendment Standard for Lime oil cold pressed / expressed (0.70% leave-on limit based on phototoxic furocoumarin content). Cold-pressed lime has a higher furanocoumarin burden than cold-pressed lemon and a significantly lower leave-on limit as a result. Rinse-off and non-skin-contact categories are not restricted.

COLOUR KEY

Green	Not Limited — no IFRA restriction applies in this category.
White	Standard limit applies — use at or below the stated maximum.
Amber	Use with extra caution — sensitive application area (lips, baby, intimate). Lower recommended levels apply.
Red	Not Approved / 0% — this oil is not permitted in this category.

ADDITIONAL FORMULATION NOTES

Soap & rinse-off products (Categories 7A, 9): Cold-pressed lime is unrestricted in rinse-off applications. The phototoxic furocoumarins are washed away with rinse-off products. Up to 3% usage is typical and safe. Lime provides a fresh, sharp, zesty citrus top note with excellent performance in cold process soap and bath products.

Leave-on products — phototoxicity warning: Cold-pressed lime has a significantly lower leave-on limit (0.70%) than cold-pressed lemon (2.00%) due to its higher furanocoumarin content. This is an important distinction when formulating leave-on skincare. Formulators must include a clear sun-avoidance warning on any leave-on product containing cold-pressed lime. Example label statement: "Contains cold-pressed lime oil — avoid direct sunlight after application."

Alternative for higher leave-on use: If higher usage levels are required in leave-on formulations (e.g., body cream or lotion at 2%+), consider steam-distilled lime oil, which is largely free of furocoumarins and carries much higher IFRA limits without phototoxic risk.

Limonene oxidation: Lime oil is limonene-rich and susceptible to oxidation. Oxidized limonene is a known sensitizer. Store lime oil sealed, away from light and heat. Consider incorporating an antioxidant (e.g. vitamin E / rosemary extract) in formulations for extended shelf life.

Disclaimer: This IFRA compliance document is prepared in good faith based on known typical constituent data for this essential oil and the IFRA 51st Amendment (June 2023). Usage limits are based on typical composition ranges and information derived from supplier testing. It is the responsibility of the formulator to verify compliance for their specific formulation. Navy Heart Essential Oils makes no warranty as to the accuracy or completeness of this information. Always perform your own safety assessment before use in consumer products.

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