

Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2015-6035
Application: New TGAI Product Chemistry-New Source (Site), New Registrant
Product: SuffOil-X Technical
Registration Number: 33098
Active ingredient (a.i.): Mineral oil
PMRA Document Number: 2872601

Purpose of Application

The purpose of this application was to register a new source of the technical grade active ingredient mineral oil.

Chemistry Assessment

Common Name: Mineral Oil
IUPAC* Chemical Name: Mineral Oil
CAS† Chemical Name: Petroleum distillates, Hydrotreated light paraffinic; Severely Hydrotreated paraffinic distillate, White mineral oil, Paraffin oils

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

SuffOil-X Technical has the following properties:

Property	Result
Colour and physical state	Pale yellow liquid
Nominal concentration	99%
Odour	Ammonia-like
Density	0.8495 g/cm ³ (23.4°C)
Vapour pressure	0.0125 Pa (at 25°C)
pH	The product is insoluble in water
Solubility in water	19 µg/mL (pH 7)
n-Octanol/water partition coefficient	Log K _{ow} = 7.7-15.7

The required chemistry data for SuffOil-X Technical have been provided, reviewed, and found to be acceptable.

Health Assessments

Aliphatic solvents such as mineral oil and paraffin base petroleum oil are of low toxicity by the oral, dermal, and inhalation routes. They are considered to be mild eye and skin irritants, and non-sensitizing.

Occupational and dietary exposure assessments were not required for this application.

Environmental Assessment

Mineral oil is ubiquitous in terrestrial and aquatic environments, and is expected to undergo microbial degradation. Risk was identified for aquatic non-target organisms and is mitigated with label statements on the associated end-use product.

Value Assessment

A value assessment was not required for this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to support the registration of the new source of technical grade active ingredient mineral oil.

References

A. List of Studies/Information Submitted by Registrant

PMRA Document Number	Reference
2812629	2017, Deficiency response, DACO: 2.11,2.13.3,2.13.4
2812630	2017, [CBI Removed] analysis, DACO: 2.13.3,2.13.4
2581523	2014, Total Petroleum Hydrocarbons, DACO: 8.2.4.2, Document K, IIA 7.4.1
2581493	2014, Determination of Physical Chemical Properties - Vapour Pressure, Solubility in Organic Solvents and Solubility in Water, DACO: 2.14.8, 2.14.9, Document K, IIA 2.3.1, IIA 2.7
2581494	2011, Henry's Law Calculation, DACO: 2.16, Document K, IIA 2.3.2
2581495	2011, UV-VIS-NIR Absorption Analysis, DACO: 2.14.12, Document K, IIA 2.5.1.1
2581497	2013, Physical and Chemical Characteristics: UV/Visible Absorption, DACO: 2.14.12, Document K, IIA 2.5.1.1
2581505	2014, M C.A. Solubility in Water: Assessment of Water Solubility, DACO: 2.14.7, Document K, IIA 2.6
2581509	2011, Estimation of the Log Kow, DACO: 2.14.11, Document K, IIA 2.8.1
2581510	2013, Physical and Chemical Characteristics: Octanol/Water Partition, DACO: 2.14.11, Document K, IIA 2.8.1
2581580	2014, CAS No. 64742-55-8 Document M-CA, Section 7 Fate and Behaviour in the Environment, DACO: 12.7, Document M
2581550	2010, Earthworm (<i>Eisenia foetida</i>), DACO: 9.2.8, Document K, IIIA 10.6.2
2581544	2011, Honey Bee Acute Oral Toxicity Limit Test OECD 213, DACO: 9.2.8, Document K, IIIA 10.4.2.1
2581545	2011, Honey Bee Acute Contact Toxicity Limit Test OECD 214, DACO: 9.2.8, Document K, IIIA 10.4.2.2
2581549	2013, A Fresh and Aged Residue Laboratory Study to Determine the Effects of TriTek (80 EO Paraffin Oil) on the Non-Target Arthropod, DACO: 9.2.8, Document K, IIIA 10.5.2
2581548	2013, Extended Laboratory Test on the Green Lacewing <i>Chrysoperla carnea</i> (<i>Neuroptera Chrysopidae</i>), DACO: 9.2.8, Document K, IIIA 10.5.2
2581520	1981, Microbial Degradation of Petroleum Hydrocarbons: An Environmental Perspective, DACO: 8.2.3.4.2, Document K, IIA 7.1.1
2581521	1990, Microbial Degradation of Hydrocarbons in the Environment, DACO: 8.2.3.4.2, Document K, IIA 7.1.1
2581522	2014, Evaluation of a Novel Technology for the Bioremediation of Hydrocarbon Contaminated Materials, DACO: 8.2.3.4.2, Document K, IIA 7.1.1
2581525	2011, Atkinson Calculation, DACO: 8.2.3.3.3, Document K, IIA 7.10

PMRA Document Number	Reference
2581547	2013, Aged Residue on <i>Aphidius rhopalosiphi</i> (Hym: Aphidiidae) Exposed to Maize Leaves (Limit Test), DACO: 9.2.8, Document K, IIIA 10.5.2
2581546	2013, Aged Residue Test on <i>Typhlodromus pyri</i> (Acari: Phytoseiidae) Exposed to Maize Plants (Limit Ttest), DACO: 9.2.8, Document K, IIIA 10.5.2
2581595	2014, TriTek Document M-CP, Section 7 Toxicological Studies on the Plant Protection Product, DACO: 12.7, Document M
2581541	2010, <i>Daphnia magna</i> 48-Hour Acute Test, DACO: 9.3.2, Document K, IIIA 10.2.2.2
2581539	2010, Rainbow Trout (<i>Oncorhynchus mykiss</i>) 96-hour Acute Test OECD 203, DACO: 9.5.4, Document K, IIIA 10.2.2.1
2581540	2010, Bluegill Sunfish (<i>Lepomis macrochirus</i>) 96-Hour Acute Test OECD 203, DACO: 9.5.4, Document K, IIIA 10.2.2.1
2581543	2010, <i>Selenastrum capricornutum</i> 72- Hour Algal Inhibition Test OECD Guideline 201, DACO: 9.8.2, 9.8.3, Document K, IIIA 10.2.2.3
2581524	2013, Biodegradability in the CO ₂ -Evolution Test According to OECD 301 B (July 1992), DACO: 8.2.3.5.2, 8.2.3.5.4, Document K, IIA 7.8.1

B. Additional Information Considered

Published Information

PMRA Document Number	Reference
1621524	2006, Memorandum Describing the Environmental Fate and Effect Division's Ecological Risk Assessment on Aliphatic Oils (PC Codes 063502 and 063503) in Support of Reregistration Eligibility Decision, DACO: 12.5
1913005	2006, Reregistration Eligibility Decision Exposure and Risk Assessment on Lower Risk Pesticide Chemicals Interim Reregistration Eligibility Decision (IRED) Document for Aliphatic Solvents (Mineral Oil and Aliphatic Petroleum hydrocarbons) CASE: Aliphatic Solvents (3004) Active Ingredients: Mineral Oils (063502) & Aliphatic Petroleum Hydrocarbons (063503), DACO: 12.5, 4.8, 5.4
1913010	2007, US Environmental Protection Agency Office of Pesticide Programs Revised Reregistration Eligibility Decision for Aliphatic Solvents Exposure and Risk Assessment on Lower Risk Pesticide Chemicals CASE: Aliphatic Solvents (3004) Active Ingredients: Mineral Oil (063502) & Aliphatic Petroleum Hydrocarbons (063503), DACO: 12.5, 4.8, 5.4

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services
Canada 2018

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of the Minister of Public Works and Government Services Canada, Ottawa, Ontario K1A 0S5.