November 28, 2021

Re: Study Submission for 1,2-Trans-Dichloroethylene (CASRN 156-60-5): Health and Safety Data Reporting; Addition of 20 High-Priority Substances and 30 Organohalogen Flame Retardants; Docket No. EPA-HQ-OPPT-2020-0474

Chemical Name and CAS Number

1,2-Trans-Dichloroethylene (CASRN 156-60-5)

Submitting Official

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Company Name and Address

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Impurities or Additives Known to Have Been Present but Not Noted in Study

None

Additional Information

The study was conducted on mixtures that are described in the report. Only the 3M™ Novec™ 72DA Engineered Fluid product contains CASRN 156-60-5. The full composition of this mixture on the following pages is confidential business information (CBI), as is concentration information in the report that is more specific than what is disclosed on the product Safety Data Sheet. Such information is exempt from substantiation requirements under Section 14(c)(2)(D).

For the information claimed CBI, I certify that the following is true and correct. 3M has:

1. taken reasonable measures to protect the confidentiality of the information;
2. determined that the information is not required to be disclosed or otherwise made available to the public under any other Federal law;
3. a reasonable basis to conclude that disclosure of the information is likely to cause substantial harm to the competitive position of 3M; and
4. a reasonable basis to believe that the information is not readily discoverable through reverse engineering.

Jonathan Gerber
Senior Regulatory Specialist
November 28, 2021

Composition Information for 3M™ Novec™ 72DA Engineered Fluid

Component Name	CAS #	Min	Max	Typical
[redacted]				

This is an electronic report. Feel free to forward this to other interested 3M employees.

3M Internal Correspondence

To: See EHS Report Publisher

From: Amanda Rice – Lab Safety

Subject: HR-06174: Air Monitoring for the Novec Fluids in Building 236 B173

Date: May 8, 2012

Executive Summary

I collected air samples for several 3M Novec vapor degreaser materials in Building 236 B173 on April 19, 2012. These samples were all long term area samples set up at the degreasers. The area is not occupied for the entire day. The samples were below their respective occupational exposure limits. This investigation was done to collect baseline data for Hazard Review 06174.

Discussion

There are several vapor degreasers located in Bldg 236 B173. The room is not occupied for an entire shift. There has been past air monitoring conducted with a SapphIRe MIRAN and those results are attached in Hazard Review 6174. We conducted air sampling for more of the components with canister samples and 3M organic vapor monitor badges. The canisters were set up with regulators capable of up to 8 hour of sampling. Ambient air is drawn into a pre-evacuated passivated canister. The sampling conditions on April 19, 2012 are described here:

1) Forward Technology F100 vapor degreaser
   - Contained 3M Novec 7200 fluid (20-80 % ethyl nonafluoroisobutyl ether)
   - Sliding cover fully open, degreaser on for the duration of the sample
   - 1 foot back from open cover, 1 foot to the right
2) Branson vapor degreaser
   - Sliding cover closed, degreaser not in operation for the duration of the sample
   - 1.5 feet above from closed cover, 1 foot to the right
3) Forward Technology F500 vapor degreaser
   - Sliding cover closed, degreaser not in operation for the duration of the sample
   - 1.5 feet above from closed cover, 1 foot to the right
4) UKI 1012 vapor degreaser
   - Contained 3M Novec 72DA fluid (66-70% 1,2-trans-dichloroethylene, [redacted]% ethyl nonafluoroisobutyl ether, 1-3% isopropyl acohol)
   - Sliding cover fully open, degreaser on for the duration of the sample
   - 1.5 feet back from open cover, 6 inches to the right

One set of air samples were taken using regulated canisters. Air sampling results are summarized in the tables below. They were analyzed by the 3M Environmental Laboratory using method ETS-8-16-.5 level 1 with gas chromatography / mass spectrometry.

1,2-trans-dichloroethylene

Sample Type	Results	OEL (8-hr TWA)
Area – F100 vapor degreaser	12	200 ppm
Area – Branson vapor degreaser	5.2	200 ppm
Area – F500 vapor degreaser	5.8	200 ppm
Area – UKI degreaser	12	200 ppm

Isopropyl alcohol

Sample Type	Results	OEL (8-hr TWA)
Area – F100 vapor degreaser	< 0.53	200 ppm
Area – Branson vapor degreaser	< 0.51	200 ppm
Area – F500 vapor degreaser	< 0.45	200 ppm
Area – UKI degreaser	< 0.53	200 ppm

Another set of air samples were taken using 3M 3520 organic vapor monitoring badges by Galson Laboratories using modified NIOSH method 1400; GC/FID badge. Air sampling results are summarized in the tables below.

1,2-trans-dichloroethylene

Sample Type	Results	OEL (8-hr TWA)
Area – F100 vapor degreaser	21	200 ppm
Area – Branson vapor degreaser	6.2	200 ppm
Area – F500 vapor degreaser	7.2	200 ppm
Area – UKI degreaser	95	200 ppm

Isopropyl alcohol

Sample Type	Results	OEL (8-hr TWA)
Area – F100 vapor degreaser	0.51	200 ppm
Area – Branson vapor degreaser	0.2	200 ppm
Area – F500 vapor degreaser	0.42	200 ppm
Area – UKI degreaser	1.6	200 ppm

Canister samples were also collected on November 11, 2011. They were analyzed by the 3M Environmental Laboratory and the components were less than their respective exposure limits. This was for WorkCHEC survey 11-236-1007.

Findings and Suggestions

Air samples were collected for several 3M Novec vapor degreaser materials in Building 236 B173 on April 19, 2012. These samples were all long term area samples set up at the degreasers. The area is not occupied for the entire day. The samples were below their respective occupational exposure limits. These results will also be posted in the Hazard Review. Please share the sample results with all affected employees and call me at 651-737-0649 with any questions or comments. Thank you for your assistance with the air monitoring.

Amanda Rice, CIH