

U.S. Department of Transportation **Pipeline and Hazardous Materials Safety Administration**  1200 New Jersey Avenue, SE Washington, DC 20590

June 12, 2024

Nita Moniaga Manager, Regulatory Affairs Chemicals Sasol Chemicals 12120 Wickchester Lane Houston, TX 77079

Reference No. 24-0021

Dear Ms. Moniaga,

This letter is in response to your March 20, 2024, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to assigning the correct proper shipping name for environmentally hazardous substances. Specifically, you state a material—identified as a marine pollutant according to international regulations—presents as a solid substance at room temperature (i.e., ambient temperature) but is heated for loading and is offered for and transported in a liquid phase as defined in § 171.8.

We have paraphrased and answered your questions as follows:

- Q1. You ask whether offering the material for transport—in liquid phase—warrants the material to be described with United Nations (UN) identification number and proper shipping name, "UN3082, Environmentally hazardous substance, liquid, n.o.s." or whether "UN3077, Environmentally hazardous substance, solid, n.o.s." with the qualifying word "molten" is more appropriate.
- A1. In this case, it is at the discretion of the offeror (i.e., the shipper). As specified in § 173.22 of the HMR, a shipper is responsible for, among others, properly describing and packaging, a hazardous material for transportation in commerce. Additionally, as you state, the material meets criteria for a marine pollutant under international regulations and—therefore—may be transported in accordance with the HMR as a Class 9 marine pollutant. *See* (4.) in Appendix B to the § 172.101 Hazardous Materials Table (HMT).

For reference, § 172.101(i)(4) provides a table for use when the packaging specified for a hazardous material specifically named in the HMT is not applicable to the form being

transported (e.g., the packaging specified is for a solid material and the material being offered for transport is a liquid).

- Q2. You ask whether § 172.102 special provision 335 requires, when free standing liquid is observed at the time of loading a material or observed when the package or transport unit is sealed, that the material cannot be described and classified as "UN3077, Environmentally hazardous substance, solid."
- A2. See answer A1. Based on our understanding that the material is offered and transported solely in the liquid phase, special provision 335 is not applicable.
- Q3. You ask when considering the solid state of the material at room temperature and the criteria of § 172.325 for elevated temperature material, is describing the material as "UN3077, Environmentally hazardous substance, solid, n.o.s., molten" more appropriate.
- A3. See answer A1. In this case, elevated temperature material is not applicable as your material does not meet the definition of an elevated temperature material as defined in § 171.8. However, to ensure that complete information concerning the material is provided, the qualifying word "molten" may be added to the shipping description in accordance with § 172.101(c)(16).

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

Upto

Dirk Der Kinderen Chief, Standards Development Branch Standards and Rulemaking Division

## 24-0021

Roundtree

## Jones, Jessie Jane CTR (PHMSA)

From: Sent: To: Cc: Subject: INFOCNTR (PHMSA) Friday, March 22, 2024 10:50 AM Dodd, Alice (PHMSA) Hazmat Interps FW: Letter of Interpretation Request for Proper Shipping Name for Environmental Hazardous Substance

Hi Alice,

Please see the below interpretation request from Nita Moniaga.

Let me know if you need anything.

Regards,

-Breanna

From: Moniaga, Nita (NC) <<u>nita.moniaga@us.sasol.com</u>>
 Sent: Wednesday, March 20, 2024 9:18 AM
 To: PHMSA Pipelinesafety <<u>PHMSA.Pipelinesafety@dot.gov</u>>
 Subject: RE: Letter of Interpretation Request for Proper Shipping Name for Environmental Hazardous Substance

**CAUTION:** This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear PHMSA,

My apologies missed the unit temperature below. It should be 100 °C instead of 100 deg and have added the clarification. Please let me know if you require further information.



## Nita Moniaga

Manager, Regulatory Affairs Chemicals Tel +1 281-588-3492 E-mail <u>Nita.moniaga@us.sasol.com</u> From: Moniaga, Nita (NC)
Sent: Wednesday, March 20, 2024 8:23 AM
To: 'phmsa.pipelinesafety@dot.gov' <<u>phmsa.pipelinesafety@dot.gov</u>>
Subject: Letter of Interpretation Request for Proper Shipping Name for Environmental Hazardous Substance
Importance: High

Dear PHMSA,

A material classified as marine pollutant is offered for transport in the US in *Liquid Phase*. Under room temperature, the material in question presents as a solid substance at ambient temperature (20 °C). During transfer and handling, it is heated above its melting point (36.7-38.9 °C) by approximately 11 °C (20 °F) or whatever necessary to achieve free flow. If they are shipped in tanker trucks and railcars, the product is heated only if needed prior to final delivery to ensure liquidity and complete transfer of material from transport vehicle. Tank trucks may need additional steaming if delivery temperature is subject to specific customer requirements. The material is not heated above 100 °C nor it is heated above its flash point, and thus it does not meet Elevated Temperature definition in § 172.325.

The material has been identified as a marine pollutant according to international transport regulations. Consequently, it falls under Class 9, being subject to either UN 3082, Environmentally Hazardous Substance, liquid, n.o.s., <u>or</u> UN 3077, Environmentally Hazardous Substance, solid, n.o.s., depending on its state.

A "liquid phase" as defined in 49 CFR 171.8, means a material that meets the definition of liquid when evaluated at the higher of the temperature at which it is offered for transportation or at which it is transported, not at the 38 °C (100 °F) temperature specified in ASTM D 4359.

The column for special provisions (§ 172.102) indicates that Special Provision 335 applies to both UN3082 and UN3077.

According to 49 CFR § 172.102 Special provisions 335:

Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leakproof when used as bulk packaging.

According to UNECE Chapter 3.3 Special Provision 335, if free liquid is visible upon loading or sealing, the substance must be classified under UN3082.

335 Mixtures of solids which are not subject to the requirements of ADN and environmentally hazardous liquids or solids shall be classified as UN 3077 and may be carried under this entry provided there is no free liquid visible at the time the substance is loaded or at the time the packaging or vehicle, wagon or container is closed. Each vehicle or container shall be leakproof when used for carriage in bulk. If free liquid is visible at the time the mixture is loaded or at the time the packaging or vehicle, wagon or container is closed, the mixture shall be classified as UN 3082.

We are seeking clarification on the following given the nature of our material, which is offered in liquid phase during transport, and in light of the instruction given under Special Provision 335:

- a) Whether the fact that the material is shipped in liquid phase suffice to warrant the material shall be classified as UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
- b) Whether 49 CFR Special Provision 335 implies that if free liquid is observed at the time of loading the mixture, or when sealing the packaging or transport unit, the mixture cannot be classified as UN3077 and shall be classified under UN3082.

c) Whether it would be more appropriate to classify it as UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., MOLTEN considering the natural phase of the material at room temperature being solid. During a recent phone conversation with DOT, it was mentioned by DOT that the word "MOLTEN" are associated with Elevated Temperature materials. Considering that this material does not meet the criteria of Elevated Temperature of § 172.325, we ask if "MOLTEN" would be an appropriate suffix.

We would greatly appreciate your guidance on this matter. We ask that the letter of interpretation to be returned electronically via email.

Sincerely,



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