

Cover Letter

Dear Sir/Madam:

This letter is to inform you of our submission of a Premanufacture Notice (PMN).

We certify that we have remitted the fee specified in 40 CFR 700.45. The User Fee Identification number is TS JA9DAA and check number is 413129.

The notified substance, "Oxirane, 2-methyl-, polymer with oxirane, bis[2-[(1-oxo-2-propen-1-yl)amino]propyl] ether", is a polymer to function as new fragrance ingredient to reduce malodor. It will be manufactured outside the US and the annual import quantity is expected to be approximately 1000 kg.

This PMN is being filed as a "Sustainable Futures" submission. A completed SF Summary Assessment Worksheet can be found as a PMN attachment. IFF is an EPA SF training graduate.

Should you have any questions regarding our PMN, please contact me at (732) 203-8136 or via email at xiao.huang@iff.com.

Very truly yours,

Xiao Huang, PhD
Regulatory Manager, Global Regulatory Affairs
International Flavors & Fragrances Inc.
800 Rose Lane
Union Beach, NJ 07735



Form Approved. O.M.B. Nos. 2070-0012 and 2070-0038

U.S. ENVIRONMENTAL PROTECTION AGENCY

AGENCY USE ONLY



EPA

PREMANUFACTURE NOTICE

FOR NEW CHEMICAL SUBSTANCES

Date of receipt: 08/05/2016

When completed, send this form to:

If sending by Courier: Office of Pollution Prevention and Toxics Document Control Office (7407M) US EPA, 1201 Constitution Ave NW WASHINGTON, D.C. 20460 Contact Numbers: 202-564-8930/8940

If sending by US Mail: Office of Pollution Prevention and Toxics Document Control Office (7407M) US EPA, 1200 Pennsylvania Ave NW WASHINGTON, D.C. 20460

Submission Report Number

Total Number of Pages

User Fee Payment ID Number

TS Number

35

413129

JA9DAA

GENERAL INSTRUCTIONS

- You must provide all information requested in this form to the extent that it is known to or reasonably ascertainable by you. Make reasonable estimates if you do not have actual data. Before you complete this form, you should read the "Instructions Manual for Premanufacture Notification" (the Instructions Manual is available from the Toxic Substances Control Act (TSCA) Information Service by calling 202-554-1404, or faxing 202-554-5603). If a user fee has been remitted for this notice (40 CFR 700.45), indicate in the boxes above the TS-user fee identification number you have generated. Remember, your user fee ID number must also appear on your corresponding fee remittance. For mailing address information see the Help instructions in the e-PMN tool.

Part I - GENERAL INFORMATION

You must provide the currently correct Chemical Abstracts (CA) Name of the new chemical substance, even if you claim the identity as confidential. You may authorize another person to submit chemical identity information for you, but your submission will not be complete and the review will not begin until EPA receives this information. A letter in support of your submission should reference your TS user fee identification number. For all Section 5 Notice submissions (paper or electronic) you must submit an original notice including all test data; if you claimed any information as confidential, an original sanitized copy must also be submitted.

TEST DATA AND OTHER DATA

You are required to submit all test data in your possession or control and to provide a description of all other data known to or reasonably ascertainable by you, if these data are related to the health and environmental effects on the manufacture, processing, distribution in commerce, use, or disposal of the new chemical substance. Standard literature citations may be submitted for data in the open scientific literature. Complete test data (written in English), not summaries of data, must be submitted if they do not appear in the open literature. You should clearly identify whether test data is on the substance or on an analog. Also, the chemical composition of the tested material should be characterized. Following are examples of test data and other data. Data should be submitted according to the requirements of §720.50 of the Premanufacture Notification Rule (40 CFR Part 720).

Part II - HUMAN EXPOSURE AND ENVIRONMENTAL RELEASE

If there are several manufacture, processing, or use operations to be described in Part II, sections A and B of this notice, reproduce the sections as needed.

Test Data (Check Below any included in this notice)

- Environmental fate data
Health effects data
Environmental effects data
Physical/Chemical Properties (A physical and chemical properties worksheet is located on the last page of this form.)
Test data not in the possession or control of the submitter
Other Data
Risk Assessments
Structure/activity relationships

Part III - LIST OF ATTACHMENTS

For paper submissions, attach additional sheets if there is not enough space to answer a question fully. Label each continuation sheet with the corresponding section heading. In Part III, list these attachments, any test data or other data and any optional information included in the notice.

OPTIONAL INFORMATION

You may include any information that you want EPA to consider in evaluating the new substance. On page 11 of this form, space has been provided for you to describe pollution prevention and recycling information you may have regarding the new substance. "Binding" boxes are included throughout this form for you to indicate your willingness to be bound to certain statements you make in this section, such as use, production volume, protective equipment. The intention is to reduce delays that routinely accompany the development of consent orders or Significant New Use Rules. Checking a "binding" box in a PMN does not by itself prohibit the submitter from later deviating from the information (except chemical identity) reported in the form; however, in the case of exemption applications (such as TMEA, LVE, LOREX) certain information provided in such notifications is binding on the submitter when the Agency approves the exemption application, especially if the production volume "binding" box is chosen in a LVE.

TYPE OF NOTICE (Check Only One)

- PMN (Premanufacture Notice)
SNUN (Significant New Use Notice)
TMEA (Test Marketing Exemption Application)
LVE (Low Volume Exemption) @ 40 CFR 723.50(c)(1)
LOREX (Low Release/Low Exposure Exemption) @ 40 CFR 723.50(c)(2)
LVE Modification
LOREX Modification
Mock Submission

CONFIDENTIALITY CLAIMS

You may claim any information in this notice as confidential. To assert a claim on the form, mark (X) the confidential box next to the information that you claim as confidential. To assert a claim in an attachment, circle or bracket the information you claim as confidential. If you claim information in the notices as confidential, you must also provide a sanitized version of the notice, (including attachments). For additional instructions on claiming information as confidential, read the Instructions Manual.

- IS THIS A CONSOLIDATED PMN (Y/N)?
of chemicals or polymers (Prenotice Communication # required, enter # on p. 3).
Mark (X) if any information in this notice is claimed as confidential.



The public reporting and recordkeeping burden for this collection of information is estimated to average 93 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed EPA Form 7710-25 to this address.

CERTIFICATION -- A printed copy of this signature page, with original signature, must be submitted with CD or paper submission.

I hereby certify to the best of my knowledge and belief that all information entered on this form is complete and accurate. I further certify that, pursuant to 15 U.S.C. § 2613(c), for all claims for protection for any confidential information made with this submission, all information submitted to substantiate such claims is true and correct, and that it is true and correct that the person submitting the claim has:

- (i) taken reasonable measures to protect the confidentiality of the information;
- (ii) determined that the information is not required to be disclosed or otherwise made available to the public under any other Federal law
- (iii) a reasonable basis to conclude that disclosure of the information is likely to cause substantial harm to the competitive position of the person; and
- (iv) a reasonable basis to believe that the information is not readily discoverable through reverse engineering.

Any knowing and willful misrepresentation is subject to criminal penalty pursuant to 18 U.S.C. § 1001.

Additional Certification Statements:

If you are submitting a PMN, Intermediate PMN, Consolidated PMN, or SNUN, check the following **user fee** certification statement that applies:

- The Company named in Part I, Section A has remitted the fee of \$2500 specified in 40 CFR 700.45(b), or
- The Company named in Part I, Section A has remitted the fee of \$1000 for an Intermediate PMN (defined @ 40 CFR 700.43) in accordance with 40 CFR 700.45(b), or
- The Company named in Part I Section A is a small business concern under 40 CFR 700.43 and has remitted a fee of \$100 in accordance with 40 CFR 700.45(b).

If you are submitting a **Low Volume Exemption (LVE)** application in accordance with 40 CFR 723.50(c)(1) or a **Low Release and Low Exposure Exemption (LoRex)** application in accordance with 40 CFR 723.50(c)(2), check the following certification statements:

- The manufacturer submitting this notice intends to manufacture or import the new chemical substance for commercial purposes, other than in small quantities solely for research and development, under the terms of 40 CFR 723.50.
- The manufacturer is familiar with the terms of this section and will comply with those terms; and
- The new chemical substance for which the notice is submitted meets all applicable exemption conditions.
- If this application is for an LVE in accordance with 40 CFR 723.50(c)(1), the manufacturer intends to commence manufacture of the exempted substance for commercial purposes within 1 year of the date of the expiration of the 30 day review period.

Confidential

Signature and title of Authorized Official (Original Signature Required)

ES/Xiao Huang

Date

08/05/2016



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NON-CBI SUBMISSION

Part I -- GENERAL INFORMATION

Section A – SUBMITTER IDENTIFICATION								
Mark (X) the "Confidential" box next to any subsection you claim as confidential								
1a.	Person Submitting Notice (in U.S.)						Confidential	
Name of Authorized Official	(first) Xiao		(last) Huang				<input type="checkbox"/>	
Position	Not Applicable							
Company	INTERNATIONAL FLAVORS AND FRAGRANCES INC.							
Mailing Address (number & street)	800 ROSE LANE							
City	UNION BEACH	State	NJ	Postal Code	07735			
email	xiao.huang@iff.com							
b.	Agent (if Applicable)						Confidential	
Name of Authorized Official	(first)		(last)				<input type="checkbox"/>	
Position								
Company								
Mailing Address (number & street)								
City		State		Postal Code				
e-mail				Telephone (include area code)				
c.	Joint Submitter (if applicable)						Confidential	
If you are submitting this notice as part of a joint submission, mark (X)						<input type="checkbox"/>		
Name of Authorized Official	(first)		(last)				<input type="checkbox"/>	
Position								
Company								
Mailing Address (number & street)								
City		State		Postal Code				
e-mail				Telephone (include area code)				
2.	Technical Contact (in U.S.)						Confidential	
Name of Authorized Official	(first) Xiao		(last) Huang				<input type="checkbox"/>	
Position	Regulatory Manager							
Company	INTERNATIONAL FLAVORS AND FRAGRANCES INC.							
Mailing Address (number & street)	800 ROSE LANE							
City	UNION BEACH	State	NJ	Postal Code	07735			
e-mail	xiao.huang@iff.com			Telephone (include area code)	7322038136			
3.	If you have had a prenotice communication (PC) concerning this notice and EPA assigned a PC Number to the notice, enter the number.					Mark (X) if none	Confidential	
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.	If you previously submitted an exemption application for the chemical substance covered by this notice, enter the exemption number assigned by EPA. If you previously submitted a PMN for this substance enter the PMN number assigned by EPA (i.e. withdrawn or incomplete).					Mark (X) if none	Confidential	
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.	If you have submitted a notice of Bona fide intent to manufacture or import for the chemical substance covered by this notice, enter the notice number assigned by EPA.					Mark (X) if none	Confidential	
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.	Type of Notice – Mark (X)							
1.	Manufacture Only	<input type="checkbox"/>	2.	Import Only	<input checked="" type="checkbox"/>	3.	Both	<input type="checkbox"/>
	Binding Option	<input type="checkbox"/>		Binding Option	<input type="checkbox"/>			



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NON-CBI SUBMISSION

Part I – GENERAL INFORMATION -- Continued

Section B – CHEMICAL IDENTITY INFORMATION:		You must provide a currently correct Chemical Abstracts (CA) name of the substance based on current CA index nomenclature rules and conventions.		
Mark (X) the "Confidential" box next to any item you claim as confidential				
Complete either item 1 (Class 1 or 2 substances) or 2 (Polymers) as appropriate. Complete all other items.				
If another person will submit chemical identity information for you (for either Item 1 or 2), mark (X) the box at the right. Identify the name, company, and address of that person in a continuation sheet.				<input type="checkbox"/>
1. Class 1 or 2 chemical substances (for definitions of class 1 and class 2 substances, see the Instructions Manual)		Class 1	Class 2	CBI
a. Class of substance - Mark (X)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Chemical name (Currently correct Chemical Abstracts (CA) Name that is consistent with TSCA Inventory listings for similar substances. For Class 1 substances a CA Index Name must be provided. For Class 2 substances either a CA Index Name or CA Preferred Name must be provided, which ever is appropriate based on current CA index nomenclature rules and conventions).				<input type="checkbox"/>
CAS Registry Number (if a number already exists for the substance)				
c. Please identify which method you used to develop or obtain the specified chemical identity information reported in this notice: (check one).				
Method 1 (CAS Inventory Expert Service - a copy of the Identification report obtained from the CAS Inventory Expert Services must be submitted as an attachment to this notice)		IES Order Number	Method 2 (Other Source)	
<input type="checkbox"/>			<input type="checkbox"/>	
Enter Attachment filename for Part I, Section B, 1. c.				<input type="checkbox"/>
d. Molecular formula				<input type="checkbox"/>
e. For a class 1 substance, provide a complete and correct chemical structure diagram. For a class 2 substance, provide a correct representative or partial chemical structure diagram, as complete as can be known, if one can be reasonably ascertained.				<input type="checkbox"/>
Enter Attachment filename for Part I, Section B, 1. e.				<input type="checkbox"/>



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For a class 2 substance - (1) List the immediate precursor substances with their respective CAS Registry Numbers. (2) Describe the nature of the reaction or process. (3) Indicate the range of composition and the typical composition (where appropriate).

Confidential

e. (1) List the immediate precursor substance names with their respective CAS Registry Numbers.

Enter Attachment filename for Part I, Section B, 1. e. (1)

e. (2) Describe the nature of the reaction or process.

Enter Attachment filename for Part I, Section B, 1. e. (2)

e. (3) Indicate the range of composition and the typical composition (where appropriate).

Enter Attachment filename for Part I, Section B, 1. e. (3)



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NON-CBI SUBMISSION

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Part I -- GENERAL INFORMATION -- Continued

Section B -- CHEMICAL IDENTITY INFORMATION -- Continued

2. Polymers (For a definition of polymer, see the Instructions Manual.)

Confidential

a. Indicate the number-average weight of the lowest molecular weight composition of the polymer you intend to manufacture. Indicate maximum weight percent of low molecular weight species (not including residual monomers, reactants, or solvents) below 500 and below 1,000 absolute molecular weight of that composition.

Describe the methods of measurement or the basis for your estimates:

GPC

Other (Specify Below)

Specify Other:

(i) lowest number average molecular weight:

(ii) maximum weight % below 500 molecular weight:

(iii) maximum weight % below 1000 molecular weight:

1009

8

32

Enter Attachment filename for Part I, Section B, 2. a.

See Attachment Continuation Page

b. You must make separate confidentiality claims for monomer or other reactant identity, composition information, and residual information. Mark (X) the "Confidential" box next to any item you claim as confidential

- (1) - Provide the specific chemical name and CAS Registry Number (if a number exists) of each monomer or other reactant used in the manufacture of the polymer.
- (2) - Mark (X) this column if entry in column (1) is confidential.
- (3) - Indicate the typical weight percent of each monomer or other reactant in the polymer.
- (4) - Choose "yes" from drop down menu if you want a monomer or other reactant used at two weight percent or less to be listed as part of the polymer description on the TSCA Chemical Substance Inventory.
- (5) - Mark (X) this column if entries in columns (3) and (4) are confidential.
- (6) - Indicate the maximum weight percent of each monomer or other reactant that may be present as a residual in the polymer as manufactured for commercial purposes.
- (7) - Mark (X) this column if entry in column (6) is confidential.

Monomer or other reactant specific chemical name (1)	CBI (2)	Typical composition (3)	Include in identity (4)	CBI (5)	Max residual (6)	CBI (7)
2-Propenoyl chloride		17.0	X		0.001	
CAS Registry Number (1) 814-68-6						
Oxirane, 2-methyl-, polymer with oxirane, bis(2-aminopropyl) ether		83.0	X		5.0	
CAS Registry Number (1) 65605-36-9						
CAS Registry Number (1)						
CAS Registry Number (1)						
CAS Registry Number (1)						

Mark (X) this box if the data continues on the next page.



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NON-CBI SUBMISSION

Continuation Sheet

ID		Field	Polymer
Original Document: 3 Lisa_Jeffamine_GPC report...			
Original Document: 4 Jeffamine Reactive polyme...			



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NON-CBI SUBMISSION

c. Please identify which method you used to develop or obtain the specified chemical identity information reported in this notice (check one).			CBI
Method 1 (CAS Inventory Expert Service - a copy of the identification report obtained from CAS Inventory Expert Service must be submitted as an attachment to this notice) <input checked="" type="checkbox"/>	IES Order Number	395282	Method 2 (other source) <input type="checkbox"/>
Enter Attachment filename for Part I, Section B, 2. c.		Original Document: 1 IES 395282_20150828100949...	<input type="checkbox"/>
d. The currently correct Chemical Abstracts (CA) name for the polymer that is consistent with TSCA Inventory listings for similar polymers.			<input type="checkbox"/>
Oxirane, 2-methyl-, polymer with oxirane, bis[2-[(1-oxo-2-propen-1-yl)amino]propyl] ether			
CAS Registry Number (if a number already exists for the substance)		1792208-65-1	
e. Provide a correct representative or partial chemical structure diagram, as complete as can be known, if one can be reasonably ascertained.			<input type="checkbox"/>
See Attachment (Original Document: 2 Jeffamine diacrylamide.gif)			
Enter Attachment filename for Part I, Section B, 2. e.		Original Document: 2 Jeffamine diacrylamide.gif	<input type="checkbox"/>



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NON-CBI SUBMISSION

Part I -- GENERAL INFORMATION -- Continued

Section B -- CHEMICAL IDENTITY INFORMATION -- Continued

3. Impurities

- (a) - Identify each impurity that may be reasonably anticipated to be present in the chemical substance as manufactured for commercial purpose. Provide the CAS Registry Number if available. If there are unidentified impurities, enter "unidentified."
 (b) - Estimate the maximum weight % of each impurity. If there are unidentified impurities, estimate their total weight %.

Impurity (a)	CAS Registry Number (a)	Maximum Percent % (b)	Confidential
2-Propenoic acid	79-10-7	0.01	
Ethanamine, N,N-diethyl-	121-44-8	0.15	
Furan, tetrahydro-	109-99-9	7.0	

Mark (X) this box if the data continues on the next page. Enter Attachment filename for Part I, Section B, 3.

4. Synonyms - Enter any chemical synonyms for the new chemical identified in subsection 1 or 2.
 Jeffamine Diacrylamide, JA-DAA,

Enter Attachment filename for Part I, Section B, 4.

5. Trade identification - List trade names for the new chemical substance identified in subsection 1 or 2.

Enter Attachment filename for Part I, Section B, 5.

6. Generic chemical name - If you claim chemical identify as confidential, you must provide a generic name for your substance that reveals the specific chemical identity of the new chemical substance to the maximum extent possible. Refer to the TSCA Chemical Substance Inventory, 1985 Edition, Appendix B for guidance on developing generic names.

Enter Attachment filename for Part I, Section B, 6.

7. Byproducts - Describe any byproducts resulting from the manufacture, processing, use, or disposal of the new chemical substance. Provide the CAS Registry Number if available.

Byproduct (1)	CAS Registry Number (2)	Confidential

Mark (X) this box if the data continues on the next page.



PMN2016P7

NON-CBI SUBMISSION

PMN Page 7

Part I -- GENERAL INFORMATION -- Continued

Section C -- PRODUCTION, IMPORT, AND USE INFORMATION:

The information on this page refers to consolidated chemical number(s): 1 2 3 4 5 6

Mark (X) the "Confidential" box next to any item you claim as confidential.

1. Production volume -- Estimate the **maximum** production volume during the first 12 months of production. Also estimate the maximum production volume for any consecutive 12-month period during the first three years of production. Estimates should be on 100% new chemical substance basis. For a Low Volume Exemption application, if you choose to have your notice reviewed at a lower production volume than 10,000 kg/yr, specify the volume and mark (x) in the binding box. If granted, you are bound to this volume.

Maximum first 12-month production (kg/yr) (100% new chemical substance basis)	Maximum 12-month production (kg/yr) (100% new chemical substance basis)	Confidential	Binding Option Mark (X)
1000	1000	<input type="checkbox"/>	<input type="checkbox"/>
Enter Attachment filename for Part I, Section C, 1.			CBI <input type="checkbox"/>

2. Use Information -- You must make separate confidentiality claims for the description of the category of use, the percent of production volume devoted to each category, the formulation of the new substance, and other use information. Mark (X) the "Confidential" Box next to any item you claim as confidential.

- a. (1) --Describe each intended category of use of the new chemical substance by function and application.
 (2) --Mark (X) this column if entry column (1) is confidential business information (CBI).
 (3) --Indicate your willingness to have the information provided in column (1) binding.
 (4) --Estimate the percent of total production for the first three years devoted to each category of use.
 (5) --Mark (X) this column if entry in column (4) is confidential business information (CBI).
 (6) --Estimate the percent of the new substance as formulated in mixtures, suspensions, emulsions, solutions, or gels as manufactured for commercial purposes at sites under your control associated with each category of use.
 (7) --Mark (X) this column if entry in column (6) is confidential business information (CBI).
 (8) --Indicate % of product volume expected for the listed "use" sectors. Mark more than one box if appropriate. Mark (X) to indicate your willingness to have the use type provided in (8) binding.
 (9) --Mark (X) this column if entry(ies) in column (8) is (are) confidential business information (CBI).

Category of use (1) (by function and application i.e. a dispersive dye for finishing polyester fibers)	CBI (2)	Binding Option Mark (X) (3)	Prod uction % (4)	CBI (5)	% in Form- ulation (6)	CBI (7)	% of substance expected per use (8)					CBI (9)
							Site- limited	Con- sumer*	Industrial	Com- mercial	Binding Option	
See continuation page. id: <P7SC2a1C0R1>			100.0		2.0		0.0	60.0	20.0	20.0		

* If you have identified a "consumer" use, please provide on a continuation sheet a detailed description of the use(s) of this chemical substance in consumer products. In addition include estimates of the concentration of the new chemical substance as expected in consumer products and describe the chemical reactions by which this substance loses its identity in the consumer product.

Mark (X) this box if the data continues on the next page.



- b. Generic use description If you claim any category of use description in subsection 2a as confidential, enter a generic description of that category. Read the Instruction Manual for examples of generic use descriptions.

Enter Attachment filename for Part I, Section C, 2. b.	CBI <input type="checkbox"/>
3. Hazard Information -- Include in the notice a copy of reasonable facsimile of any hazard warning statement, label, material safety data sheet, or other information which will be provided to any person who is reasonably likely to be exposed to this substance regarding protective equipment or practices for the safe handling, transport, use, or disposal of the new substance. List in part III hazard information you include.	Binding Option Mark (X)
Mark (X) this box if you attach hazard information.	<input checked="" type="checkbox"/>



PMN2016P7-1

Continuation Sheet

ID	P7SC2a1C0R1	Field	Part I, Section C, 2.a.(1) Category of Use, Row 1
<p>The notified polymer functions to reduce malodors. It will be sold to industrial and commercial customers for their incorporation into industrial, commercial, and household consumer products such as floor cleaners, cat litters, fabric refresher sprays, etc.</p>			



PMN2016P7-2

Continuation Sheet

ID	Field	Part I, Section C, 2.a. Additional Consumer Use Text
		<p>Category of Use: The notified polymer functions to reduce malodors. It will be sold to industrial and commercial customers for their incorporation into industrial, commercial, and household consumer products such as floor cleaners, cat litters, fabric refresher sprays, etc.</p> <p>Consumer Use: The notified polymer, either in a fragrance formula (made by blending with other fragrance ingredients), or in its original form as manufactured, will be sold to industrial and commercial customers for their incorporation into floor cleaners, cat litters, fabric refresher sprays ,and other similar industrial, household and consumer products. Estimated concentration of the notified polymer in consumer products is no higher than 2%. The polymer is expected to be stable in the consumer products. During the use or application of the product, the polymer interacts with malodor molecules such as thiols and amines to achieve is malodor reducing function.</p> <p>Attachments:</p>



PMN2016P8

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NON-CBI SUBMISSION

Part II-- HUMAN EXPOSURE AND ENVIRONMENTAL RELEASE

Section A -- INDUSTRIAL SITES CONTROLLED BY THE SUBMITTER

Mark (X) the "Confidential" box next to any item you claim as confidential

The information on pages 8 and 8a refer to consolidated chemical number(s): 1 2 3 4 5 6

Complete section A for each type of manufacture, processing, or use operation involving the new chemical substance at industrial sites you control. Importers do not have to complete this section for operations outside the U.S.; however, you may still have reporting requirements if there are further industrial processing or use operations after import. You must describe these operations. See instructions manual

1. Operation description

Confidential

a. Identity -- Enter the identity of the site at which the operation will occur.

Name	INTERNATIONAL FLAVORS & FRAGRANCES INC.			<input type="checkbox"/>
Site address (number and street)	600 HWY 36			
City	HAZLET	County	MONMOUTH COUNTY	
State	NJ	ZIP code	07730	

If the same operation will occur at more than one site, enter the number of sites. Identify the additional sites on a continuation sheet, and if any of the sites have significantly different production rates or operations, include all the information requested in this section for those sites as attachments. →

1

Mark (X) this box if the data continues on the next page.

b. Type --

Manufacturing Processing Use

Mark (X)

c. Amount and Duration -- Complete 1 or 2 as appropriate

Confidential

1. Batch	Maximum kg/batch (100% new chemical substance)	Hours/batch	Batches/year	<input type="checkbox"/>
	10.0	4.0	100.0	
2. Continuous	Maximum kg/day (100% new chemical substance)	Hours/day	Days/year	<input type="checkbox"/>

d. Process description

Mark (X) to indicate your willingness to have your process description binding.
→

- Diagram the major unit operation steps and chemical conversions. Include interim storage and transport containers (specify- e.g. 5 gallon pails, 55 gallon drum, rail car, tank truck, etc.).
- Provide the identity, the approximate weight (by kg/day or kg/batch on a 100% new chemical substance basis), and entry point of all starting materials and feedstocks (including reactants, solvents, catalysts, etc.), and of all products, recycle streams, and wastes. Include cleaning chemicals (note frequency if not used daily or per batch.).
- Identify by number the points of release, including small or intermittent releases, to the environment of the new chemical substance. If releasing to two media at the same step, assign a second release number for the second medium.

See continuation page. id: <P8SB1bC1>



PMN2016P8A

PMN Page 8a

NON-CBI SUBMISSION

Diagram of the major unit operation steps.

Confidential

See Attachment (Original Document: 23 JA-DAA compounding proces...
)

Enter Attachment filename for Part II, Section A, 1. d.

Original Document: 23 JA-DAA compounding proces...



PMN2016P8-1

Continuation Sheet

ID	P8SB1bC1	Field	Part II, Section A, 1.d. Process Description Optional Text
<p>The notified substance will be manufactured outside of the US, in the form of a ~50% solution in common aqueous or alcohol solvent. The produced mixture will be shipped to IFF's compounding facility in New Jersey, where it may be further processed. Such compounding process is strictly a blending of the notified substance with other fragrance ingredients to make fragrance formulas that subsequently will be sold to downstream manufacturers for their incorporation into enduse products. The blending operation is an open system. The blending vessels used are typically covered in the workplace but not sealed and rest on an electronic scale. In general, ingredients are pumped or gravity fed into the vessel until the desired weight is achieved. When all the ingredients are added, the mixture is stirred until the blending operation is complete (there is no chemical reaction taking place). The finished blended fragrance is then pumped into an appropriated delivery vessel(s). Worker exposures are limited to those situations when materials are being added or transferred, not during the mixing process, and are estimated to be 0.5 hour of the approximate 4 hours to prepare a typical batch. The total annual quantity used for compounding is anticipated to be about 1000 kg for the pure notified substance, i.e., about 2000kg 50% solution, which will be stored in 8-12 drums. Once the drums are emptied, they are transported (with other empty used drums) via approved transport to an approved drum reconditioning contractor* who cleans, crushes and shreds the containers. The scrap metal is then recycled. Drum wash water is sent to the Middlesex County Utility Authority, PO Box 159, Main St. Sayreville, NJ (NJPDES# NJ0020141). Average number of empty drums used to transport and store the notified substance (50%) will be 10 per year. Typically the residue of the notified substance in the empty drums is anticipated to be 0.03% (60 grams solution left from 200 kg).</p> <p>*Approved contractor for drum removal: Recycle Inc, East 20-A Harmich Rd South Plainfield, NJ 07080 (908) 756-2200 EPA ID#: NJ000007153.</p> <p>If the notified substance was to be used at the anticipated maximum level of 5% in a fragrance oil, the maximum amount of the notified substance blended in a typical batch of 200kg would be 10kg. Assuming 10kg of the notified substance per batch, and a total annual quantity for processing to be 1000kg, the total number of batches per year estimated to contain the notified substance is 100. Assuming each batch process time is 4hr, total process time involving the notified substance will be 400hr (= 50 days assuming 8hr operation per day). The activities that are related to worker exposure and environmental release/disposal include:</p> <ol style="list-style-type: none"> 1) unloading raw material from drums (50 days per year) 2) Fugitive release during mixing operation (50 days per year) 3) loading product into containers (50 days per year) 4) sampling product (50 days per year) 5) loading product into containers (50 days per year) 6) equipment washes after blending (total of 100 batches/yr or 50 days per year) <p>The maximum percentage of the notified substance that will be used in the fragrance formula is 5%. The 99th percentile use level of fragrance oil in consumer products is 5%. Therefore, the maximum concentration of the notified substance in these consumer products is 0.25%.</p> <p>Under another scenario, the notified polymer in its original 50% form may also be directly supplied to downstream manufacturers to incorporate into floor cleaner, cat litters, and other similar consumer products. In this case, the maximum concentration of the notified substance in consumer products is expected to be 2% maximum.</p> <p>For either of the above mentioned use scenarios, the notified substance is not anticipated to undergo any chemical reactions in the fragrance formulation or in the consumer products that will cause the notified substance to lose its identity. During the applications of the enduse products, the notified substance interacts with malodor molecules such as thiols to achieve its malodor reducing function.</p>			



Part II-- HUMAN EXPOSURE AND ENVIRONMENTAL RELEASE -- Continued

Section A -- INDUSTRIAL SITES CONTROLLED BY THE SUBMITTER -- Continued

The information on pages 9 and 9a refer to consolidated chemical number(s): 1 2 3 4 5 6

- 2. Occupational Exposure** -- You must make separate confidentiality claims for the description of worker activity, physical form of the new chemical substance, number of workers exposed, and duration of activity. Mark (X) the "Confidential" box next to any item you claim as confidential.
- (1) -- Describe the activities (i.e. bag dumping, tote filling, unloading drums, sampling, cleaning, etc.) in which workers may be exposed to the substance.
 - (2) -- Mark (X) this column if entry in column (1) is confidential business information (CBI).
 - (3) -- Describe any protective equipment and engineering controls used to protect workers.
 - (4) and (6) -- Indicate your willingness to have the information provided in column (3) or (5) binding.
 - (5) -- Indicate the physical form(s) of the new chemical substance (e.g., solid: crystal, granule, powder, or dust) and % new chemical substance (if part of a mixture) at the time of exposure.
 - (7) -- Mark (X) this column if entries in columns (3) and (5) are confidential business information (CBI).
 - (8) -- Estimate the maximum number of workers involved in each activity for all sites combined.
 - (9) -- Mark (X) this column if entry in column (8) is confidential business information (CBI).
 - (10) and (11) -- Estimate the maximum duration of the activity for any worker in hours per day and days per year.
 - (12) -- Mark (X) this column if entries in columns (10) and (11) are confidential business information (CBI).

Worker activity (i.e., bag dumping, filling drums) (1)	CBI (2)	Protective Equipment/ Engineering Controls (3)	Binding Option Mark (X) (4)	Physical form(s) & % new substance (5)	Binding Option Mark (X) (6)	CBI (7)	# of Workers Exposed (8)	CBI (9)	Maximum Duration		CBI (12)
									Hrs/Day (10)	Days/Yr (11)	
Unloading from Drums		chemical resistant gloves, proper clothing, safety glasses, local exhaust		liquid, 50			45		0.5	50	
Sampling		chemical resistant gloves, proper clothing, safety glasses, local exhaust ventilation		liquid, 5			45		0.5	50	
Loading into Containers		chemical resistant gloves, proper clothing, safety glasses, local exhaust ventilation		liquid, 5			45		0.5	50	
Equipment Cleaning Losses from a Single, Large Vessel		chemical resistant gloves, proper clothing, safety glasses, local exhaust ventilation		liquid, 5			45		0.5	50	
Miscellaneous Activities Related to Liquid Processing		chemical resistant gloves, proper clothing, safety glasses, local exhaust ventilation		liquid, 5			45		0.5	50	

Mark (X) this box if the data continues on the next page.

Enter Attachment filename for Part II, Section A on the bottom of page 9a.



3. Environmental Release and Disposal -- You must make separate confidentiality claims for the release number and the amount of the new chemical substance released and other release and disposal information. Mark (X) the "Confidential" box next to each item you claim as confidential.

(1) -- Enter the number of each release point identified in the process description, part II, section A, subsection 1d(3).
 (2) -- Estimate the amount of the new substance released (a) directly to the environment or (b) into control technology (in kg/day or kg/batch).
 (3) -- Mark (X) this column if entries in columns (1) and (2) are confidential business information (CBI).
 (4) -- Identify the media (stack air, fugitive air (optional-see Instruction Manual), surface water, on-site or off-site land or incineration, POTW, or other (specify)) to which the new substance will be released from that release point.
 (5) -- a. Describe control technology, if any, and control efficiency that will be used to limit the release of the new substance to the environment. For releases disposed of on land, characterize the disposal method and state whether it is approved for disposal of RCRA hazardous waste. On a continuation sheet, for each site describe any additional disposal methods that will be used and whether the waste is subject to secondary or tertiary on-site treatment. b. Estimate the amount released to the environment after control technology (in kg/day).
 (6) -- Mark (X) this column if entries in columns (4) and (5) are confidential business information (CBI).
 (7) -- Identify the destination(s) of releases to water. Please supply NPDES (National Pollutant Discharge Elimination System) numbers for direct discharges or NPDES numbers of the POTW (Publicly Owned Treatment Works). Mark (X) if the POTW name or NPDES # is confidential business information (CBI).

Release Number (1)	Amount of New Substance Released		CBI (3)	Medium of release e.g. Stack air (4)	Control technology and efficiency (you may wish to optionally attach efficiency data)			CBI (6)
	(2a)	(2b)			(5a)	Binding Mark (X)	(5b)	
(1)		3.64E-13		Fugitive Air	See continuation page. id: <P9ASA3(5a)C1R1>		3.64E-14 Kg/Day	
(2)		1.86E-16		Fugitive Air	See continuation page. id: <P9ASA3(5a)C1R2>		1.86E-17 Kg/Day	
(3)		1.86E-16		Fugitive Air	See continuation page. id: <P9ASA3(5a)C1R3>		1.86E-17 Kg/Day	
(4)		2.02E-13		Fugitive Air	See continuation page. id: <P9ASA3(5a)C1R4>		2.02E-14 Kg/Day	
(5b)		0.200		POTW	See continuation page. id: <P9ASA3(5a)C1R5>		0.156 Kg/Day	
(5a)		8.72E-13		Fugitive Air	See continuation page. id: <P9ASA3(5a)C1R6>		8.72E-14 Kg/Day	

Mark (X) this box if the data continues on the next page.

(7) Mark (X) the destination(s) of releases to water.			NPDES#	CBI
<input checked="" type="checkbox"/>	POTW--provide name(s)	Bayshore Regional Sewerage Authority (BRSA)	NJ0024708	<input type="checkbox"/>
<input type="checkbox"/>	Navigable waterway- provide name(s)			<input type="checkbox"/>
<input type="checkbox"/>	Other--Specify			<input type="checkbox"/>

Enter Attachment filename for Part II, Section A.



PMN2016P9A-1

Continuation Sheet

ID	P9ASA3(5a)C1R1	Field	Part II, Section A, B.(5a) Control Technology & Efficiency, Row 1
<p>Biofiltration unit - Designed Removal efficiency: 90% emissions of Organic compounds</p>			



PMN2016P9A-2

NON-CBI SUBMISSION

Continuation Sheet

ID	P9ASA3(5a)C1R2	Field	Part II, Section A, B.(5a) Control Technology & Efficiency, Row 2
<p>Biofiltration unit - Designed Removal efficiency: 90% emissions of Organic compounds</p>			



PMN2016P9A-3

NON-CBI SUBMISSION

Continuation Sheet

ID	P9ASA3(5a)C1R3	Field	Part II, Section A, B.(5a) Control Technology & Efficiency, Row 3
<p>Biofiltration unit - Designed Removal efficiency: 90% emissions of Organic compounds</p>			



PMN2016P9A-4

Continuation Sheet

ID	P9ASA3(5a)C1R4	Field	Part II, Section A, B.(5a) Control Technology & Efficiency, Row 4
<p>Biofiltration unit - Designed Removal efficiency: 90% emissions of Organic compounds</p>			



PMN2016P9A-5

NON-CBI SUBMISSION

Continuation Sheet

ID	P9ASA3(5a)C1R5	Field	Part II, Section A, B.(5a) Control Technology & Efficiency, Row 5
<p>An on-site wastewater pretreatment plant using Sequencing Batch Reactor (aerobic) technology</p>			



PMN2016P9A-6

Continuation Sheet

ID	P9ASA3(5a)C1R6	Field	Part II, Section A, B.(5a) Control Technology & Efficiency, Row 6
<p>Biofiltration unit - Designed Removal efficiency: 90% emissions of Organic compounds</p>			



Part II-- HUMAN EXPOSURE AND ENVIRONMENTAL RELEASE – Continued

Section B -- INDUSTRIAL SITES CONTROLLED BY OTHERS

The information on pages 10 and 10a refer to consolidated chemical number(s): 1 2 3 4 5 6

Complete section B for typical processing or use operations involving the new chemical substance at sites you do not control. Importers do not have to complete this section for operations outside the U.S.; however, you must report any processing or use activities after import. See the Instructions Manual. Complete a separate section B for each type of processing, or use operation involving the new chemical substance. If the same operation is performed at more than one site describe the typical operation common to these sites. Identify additional sites on a continuation sheet.

1(a). Operation Description -- To claim information in this section as confidential, bracket (e.g. {}) the specific information that you claim as confidential.

- (1) -- Diagram the major unit operation steps and chemical conversions, including interim storage and transport containers (specify - e.g. 5 gallon pails, 55 gallon drums, rail cars, tank trucks, etc). On the diagram, identify by letter and briefly describe each worker activity.
- (2) -- Either in the diagram or in the text field 1(b) below, provide the identity, the approximate weight (by kg/day or kg/batch, on an 100% new chemical substance basis), and entry point of all feedstocks (including reactants, solvents and catalysts, etc) and all products, recycle streams, and wastes. Include cleaning chemicals (note frequency if not used daily or per batch).
- (3) -- Either in the diagram or in the text field 1(b) below, identify by number the points of release, including small or intermittent releases, to the environment of the new chemical substance.
- (4) -- Please enter the # of sites (remember to identify the locations of these sites on a continuation sheet):

	Number of Sites	25	Confidential	<input type="checkbox"/>
--	------------------------	----	--------------	--------------------------

See Attachment (Original Document: 22 JA-DAA operation process ...)

1(b). (Optional) This space is for a text description to clarify the diagram above. Confidential

We anticipate that we will have approximately 25 customers, but each customer may have multiple sites where they use the notified material. We cannot specifically identify the location of the sites of our potential customers. The diagram attached represents our expectations of the manufacturing practices of our customers. These practices are anticipated to be similar to the practices of the processing of fragrance oils by IFF. We anticipate that all wastewaters from washing storage vessels, equipment, and lines are discharged to a POTW. The customers may process the notified chemical either in its original form, i.e., the 50% solution, or in the form of a fragrance oil formulated by IFF at concentration <=5%. These operations are anticipated to be similar to our operations of blending fragrance oils. When being used in the original 50% form, the anticipated highest use level of the solution in finished consumer products is 4% by weight. Therefore, the highest level of the notified substance in the final consumer product is 2%. Domestic production of household consumer products is anticipated to be automated to a higher degree and worker exposure limited mainly to line connections, equipment maintenance and cleaning. Any worker exposure will be incidental. Standard workplace practices include use of chemical resistant gloves, proper clothing, goggles or face shields when eye contact may occur and the use of NIOSH approved respirators when appropriate. Release to the environment would occur from line cleaning or washing. Domestic consumer product manufacturers likely employ the most effective manufacturing cost reduction and environmental programs, and will focus on limiting loss of the fragrance oil and other ingredients to the environment. Control technologies are anticipated to be similar to IFF's (e.g. Condenser/scrubber, biofiltration or carbon adsorption to capture emissions from fugitive air emissions, on-site pre-treatment facilities.) At a minimum, release of wastewaters to a POTW is expected.

Enter Attachment filename for Part II, Section B on the bottom of page 10a. Original Document: 22 JA-DAA operation process ...



2. Worker Exposure/Environmental Release

- (1) -- From the diagram above, provide the letter for each worker activity. Complete 2-8 for each worker activity described.
 - (2) -- Estimate the number of workers exposed for all sites combined.
 - (4) -- Estimate the typical duration of exposure per worker in (a) hours per day and (b) days per year.
 - (6) -- Describe physical form of exposure and % new chemical substance (if in mixture), and any protective equipment and engineering controls, if any, used to protect workers.
 - (7) -- Estimate the percent of the new substance as formulated when packaged or used as a final product.
 - (9) -- From the process diagram above, enter the number of each release point. Complete 9-13 for each release point identified.
 - (10) -- Estimate the amount of the new substance released (a) directly to the environment or (b) into control technology to the environment (in kg/day or kg/batch).
 - (12) -- Describe media of release i.e. stack air, fugitive air (optional-see Instructions Manual), surface water, on-site or off-site land or incineration, POTW, or other (specify) and control technology, if any, that will be used to limit the release of the new substance to the environment.
 - (14) -- Identify byproducts which may result from the operation.
- (3), (5), (8), (11), (13) and (15) -- Mark (X) this column if any of the proceeding entries are confidential business information (CBI).

Letter of Activity	# of Workers Exposed	CBI	Duration of Exposure		CBI	Protective Equip./Engineering Controls/Physical Form	% new substance	% in Formulation	CBI
			(4a)	(4b)					
A	50		0.25	2		Chemical resistant gloves, safety glasses / Process controls, ventilation,Liquid	50	2	
B	50		0.25	2		Chemical resistant gloves, safety glasses / Process controls, ventilation,Liquid, paste, powder, solid, etc.	2	2	

Release Number	Amount of New Substance Released		CBI	Media of Release & Control Technology	CBI
	(10a)	(10b)			
1	0	Trace		Fugitive Air Biofilter	
1	0	trace		POTW POTW	
2	0	trace		Fugitive Air Biofilter	
2	0	trace		POTW POTW	

Mark (X) this box if the data continues on the next page.

(14) Byproducts:

(15) CBI

Enter Attachment filename for Part II, Section B.



PMN2016P10X1

Part II-- HUMAN EXPOSURE AND ENVIRONMENTAL RELEASE – Continued

Section B -- INDUSTRIAL SITES CONTROLLED BY OTHERS

The information on pages 10 and 10a refer to consolidated chemical number(s): 1 2 3 4 5 6

Complete section B for typical processing or use operations involving the new chemical substance at sites you do not control. Importers do not have to complete this section for operations outside the U.S.; however, you must report any processing or use activities after import. See the Instructions Manual. Complete a separate section B for each type of processing, or use operation involving the new chemical substance. If the same operation is performed at more than one site describe the typical operation common to these sites. Identify additional sites on a continuation sheet.

1(a). Operation Description -- To claim information in this section as confidential, bracket (e.g. {}) the specific information that you claim as confidential.

- (1) -- Diagram the major unit operation steps and chemical conversions, including interim storage and transport containers (specify - e.g. 5 gallon pails, 55 gallon drums, rail cars, tank trucks, etc). On the diagram, identify by letter and briefly describe each worker activity.
- (2) -- Either in the diagram or in the text field 1(b) below, provide the identity, the approximate weight (by kg/day or kg/batch, on an 100% new chemical substance basis), and entry point of all feedstocks (including reactants, solvents and catalysts, etc) and all products, recycle streams, and wastes. Include cleaning chemicals (note frequency if not used daily or per batch).
- (3) -- Either in the diagram or in the text field 1(b) below, identify by number the points of release, including small or intermittent releases, to the environment of the new chemical substance.
- (4) -- Please enter the # of sites (remember to identify the locations of these sites on a continuation sheet):

	Number of Sites	25	Confidential	<input type="checkbox"/>
--	------------------------	----	--------------	--------------------------

1(b). (Optional) This space is for a text description to clarify the diagram above. Confidential

The total annual quantity of raw material containing the PMN substance (50% new chemical substance) for processing will be 2000 kg (concentration of the PMN substance is 50%, i.e., total 1000 kg pure PMN substance) stored in 10 drums. Once the drums of raw material are emptied, they are transported (with other empty used drums) via approved transport to an approved drum reconditioning contractor who cleans, crushes and shreds the containers. The scrap metal is then recycled.

The approved contractor for drum removal is: Recycle Inc. East, 20-A Harmich Road, South Plainfield, N.J. 07080, EPA ID#: NJ000007153
Drum wash waters are sent to: The Middlesex County Utility Authority (MCUA), P. O. Box 159, Main St., Sayreville, N.J. NJPDES#: NJ0020141.

Enter Attachment filename for Part II, Section B on the bottom of page 10a.



2. Worker Exposure/Environmental Release

- (1) -- From the diagram above, provide the letter for each worker activity. Complete 2-8 for each worker activity described.
 - (2) -- Estimate the number of workers exposed for all sites combined.
 - (4) -- Estimate the typical duration of exposure per worker in (a) hours per day and (b) days per year.
 - (6) -- Describe physical form of exposure and % new chemical substance (if in mixture), and any protective equipment and engineering controls, if any, used to protect workers.
 - (7) -- Estimate the percent of the new substance as formulated when packaged or used as a final product.
 - (9) -- From the process diagram above, enter the number of each release point. Complete 9-13 for each release point identified.
 - (10) -- Estimate the amount of the new substance released (a) directly to the environment or (b) into control technology to the environment (in kg/day or kg/batch).
 - (12) -- Describe media of release i.e. stack air, fugitive air (optional-see Instructions Manual), surface water, on-site or off-site land or incineration, POTW, or other (specify) and control technology, if any, that will be used to limit the release of the new substance to the environment.
 - (14) -- Identify byproducts which may result from the operation.
- (3), (5), (8), (11), (13) and (15) -- Mark (X) this column if any of the proceeding entries are confidential business information (CBI).

Letter of Activity	# of Workers Exposed	CBI	Duration of Exposure		CBI	Protective Equip./Engineering Controls/Physical Form	% new substance	% in Formulation	CBI
			(4a)	(4b)					
1	1		0.5	10		See continuation page. id: <P10ASB2(6)C2R1>	50	50	

Release Number	Amount of New Substance Released		CBI	Media of Release & Control Technology	CBI
	(10a)	(10b)			
A		3.12		See continuation page. id: <P10ASB2(12)C2R1>	
A		6.74E-16		See continuation page. id: <P10ASB2(12)C2R1>	

Mark (X) this box if the data continues on the next page.

(14) Byproducts:	<input type="checkbox"/>	(15) CBI	<input type="checkbox"/>
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Enter Attachment filename for Part II, Section B.	<input type="checkbox"/>
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PMN2016P10AX1-1

NON-CBI SUBMISSION

Continuation Sheet

ID	P10ASB2(6)C2R1	Field	Part II, Section B, 2.(6) Protective Equip./Eng. Controls, etc., Row 1
<p>chemical resistant gloves, proper clothing, safety glasses, local exhaust ventilation, etc.,liquid,liquid</p>			



PMN2016P10AX1-2

NON-CBI SUBMISSION

Continuation Sheet

ID	P10ASB2(12)C2R1	Field	Part II, Section B, 2.(12) Media of Release & Ctrl Technology, Row 1
<p>POTW POTW: NPDES# NJ0020141 The Middlesex County Utility Authority (MCUA). Release 10 Days/Year</p>			



PMN2016P10AX1-3

NON-CBI SUBMISSION

Continuation Sheet

ID	P10ASB2(12)C2R1	Field	Part II, Section B, 2.(12) Media of Release & Ctrl Technology, Row 1
<p>Fugitive Air Unknown. Release 10 Days/Year.</p>			



OPTIONAL POLLUTION PREVENTION INFORMATION

To claim information in the following section as confidential, bracket (e.g. {}) the specific information that you claim as confidential.

In this section you may provide information not reported elsewhere in this form regarding your efforts to reduce or minimize potential risks associated with activities surrounding manufacturing, processing, use and disposal of the PMN substance. Please include new information pertinent to pollution prevention, including source reduction, recycling activities and safer processes or products available due to the new chemical substance. Source reduction includes the reduction in the amount or toxicity of chemical wastes by technological modification, process and procedure modification, product reformulation, and/or raw materials substitution. Recycling refers to the reclamation of useful chemical components from wastes that would otherwise be treated or released as air emissions or water discharges, or land disposal. Quantitative or qualitative descriptions of pollution prevention, source reduction and recycling should emphasize potential risk reduction in addition to compliance with existing regulatory requirements. The EPA is interested in the information to assess overall net reductions in toxicity or environmental releases and exposures, not the shifting of risks to other media (e.g., air to water) or nonenvironmental areas (e.g., occupational or consumer exposure). To the extent known, information about the technology being replaced will assist EPA in its relative risk determination. In addition, information on the relative cost or performance characteristics of the PMN substance to potential alternatives may be provided.

Describe the expected net benefits, such as

- (1) an overall reduction in risk to human health or the environment;
- (2) a reduction in the generation of waste materials through recycling, source reduction or other means;
- (3) a reduction in the use of hazardous starting materials, reagents, or feedstocks;
- (4) a reduction in potential toxicity, human exposure and/or environmental release; or
- (5) the extent to which the new chemical substance may be a substitute for an existing substance that poses a greater overall risk to human health or the environment.

Information provided in this section will be taken into consideration during the review of this substance. See PMN Instructions Manual and Pollution Prevention Guidance manual for guidance and examples.

On Site Treatment: all industrial wastewaters that exit the compounding facility (Hazlet, NJ) are pre-treated via a permitted, Sequencing Batch Reactor (SBR), waste activated sludge facility and then discharged to the local POTW.

Off Site Treatment: the wastewater enters the POTW (Bayshore Regional Sewerage Authority (BRSA), NPDES# NJ0024708), a 16 million gallon per day (MGD) capacity treatment facility. The typical daily flow through the BRSA facility is 8-10 MGD. The treated effluent from the POTW is combined with the wastewaters from other municipalities. This total flow is then managed and discharged through the Monmouth County Bayshore Outfall Authority into the Atlantic Ocean, approximately 2,000 feet offshore.

Enter Attachment filename for Pollution Prevention Page 11.



**Part III -- LIST OF ATTACHMENTS**

Attach continuation sheets for sections of the form, test data and other data (including physical/chemical properties and structure/activity information), and optional information after this page. Clearly identify the attachment and the section of the form to which it relates, if appropriate. Number consecutively the pages of any paper attachments. In the Number of Pages column below, enter the inclusive page numbers of each attachment for paper submissions or enter the total number of pages for each attachment for electronic submissions. Electronic attachments can be identified by filename.

Mark (X) the "Confidential" box next to any attachment name or filename you claim as confidential. Read the Instructions Manual for guidance on how to claim any information in an attachment as confidential. You must include with the sanitized copy of the notice form a sanitized version of any attachment in which you claim information as confidential.

#	Attachment Name	Attachment Filename	Number of Pages	Associated PMN Section Number	CBI
1	SDS	Jeffamine DAA in EtOH_GHS SDS_2016.pdf	10	Hazard Information Section (Chemical 36935)	
2	Chemical structure diagram	Jeffamine diacrylamide.gif	1	Polymers Identification Substances Chemical Structure Diagram	
3	IES report of the notified substance.	IES 395282_20150828100949.pdf	3	Polymers Identification Substances ID Method (Chemical 36935)	
4	GPC report	Lisa_Jeffamine_GPC report.pdf	3	Monomers (Chemical 36935)	
5	Analytical report	Jeffamine Reactive polymer_TOX analytical.pdf	5	Monomers (Chemical 36935)	
6	Fragrance oil compounding at submitter's site	JA-DAA compounding process.jpg	1	Submitter Controlled Operations (Fragrance compounding)	
7	Diagram of generally expected process at sites controlled by others	JA-DAA operation process by others.jpg	1	Industrial Sites Controlled By Others (Blending at customers' sites)	
8	EPISuite summary report based on low molecular weight single structure	EPISuite summary_Low MW Jeffamine diacrylamide.pdf	2	Additional Attachments	
9	ECOSAR (v2 beta) summary report based on low molecular weight single structure	ECOSAR summary_Low MW Jeffamine diacrylamide.pdf	2	Additional Attachments	
10	ChemSteer (v3.0) summary report	JA-DAA_Chemsteer summary report.pdf	12	Additional Attachments	
11	EFAST2014 summary report : Release by drum reclaimer	JA-DAA drum.pdf	5	Additional Attachments	
12	EFAST2014 summary report: IFF on-site release	JA-DAA on-site.pdf	15	Additional Attachments	
13	EFAST2014 summary report: Release by POTW (Bayshore Regional Sewerage Authority)	JA-DAA BRSA.pdf	5	Additional Attachments	
14	EFAST2014 summary report: Release by POTW (Passaic Valley Sewerage Commissions)	JA-DAA Passiac.pdf	2	Additional Attachments	
15	EFAST2014 summary report: Down-the-Drain	JA-DAA on-site-dtd.pdf	2	Additional Attachments	
16	EFAST2014 summary report: Consumer exposure-Laundry detergent	JA-DAA EFAST cem Laundry Detergent.pdf	4	Additional Attachments	
17	EFAST2014 summary report: Consumer exposure - General cleaner	JA-DAA EFAST cem General Cleaner.pdf	4	Additional Attachments	
18	EFAST2014 summary report: Consumer Exposure - Bar soap	JA-DAA EFAST cem Bar Soap.pdf	4	Additional Attachments	
19	PBT profiler summary report based on low	JA-DAA_PBT profiler report.pdf	1	Additional Attachments	
20	Ames assay study report	Malodor Reactive Polymer JA900-DAA-	47	Additional Attachments	
21	Study report: In vitro Mammalian Cell	Malodor Reactive Polymer	44	Additional Attachments	

Mark (X) this box if the data continues on the next page.





Part III -- LIST OF ATTACHMENTS

Attach continuation sheets for sections of the form, test data and other data (including physical/chemical properties and structure/activity information), and optional information after this page. Clearly identify the attachment and the section of the form to which it relates, if appropriate. Number consecutively the pages of any paper attachments. In the Number of Pages column below, enter the inclusive page numbers of each attachment for paper submissions or enter the total number of pages for each attachment for electronic submissions. Electronic attachments can be identified by filename.

Mark (X) the "Confidential" box next to any attachment name or filename you claim as confidential. Read the Instructions Manual for guidance on how to claim any information in an attachment as confidential. You must include with the sanitized copy of the notice form a sanitized version of any attachment in which you claim information as confidential.

Table with 6 columns: #, Attachment Name, Attachment Filename, Number of Pages, Associated PMN Section Number, CBI. Rows 22-26 contain attachment details.

Mark (X) this box if the data continues on the next page.



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NON-CBI SUBMISSION

PMN Page 13

PHYSICAL AND CHEMICAL PROPERTIES WORKSHEET

The information on this page refers to chemical number(s): 1 2 3 4 5 6

To assist EPA's review of physical and chemical properties data, please complete the following worksheet for data you provide and include it in the notice. Identify the property measured, the value of the property, the units in which the property is measured (as necessary), and whether or not the property is claimed as confidential. Give the attachment number (found on page 12) in column (b). The physical state of the neat substance should be provided. These measured properties should be for the neat (100% pure) chemical substance. Properties that are measured for mixtures or formulations should be so noted (% PMN substance in ___). You are not required to submit this worksheet; however, EPA strongly recommends that you do so, as it will simplify the review and ensure that confidential information is properly protected. You should submit this worksheet as a supplement to your submission of test data. This worksheet is not a substitute for submission of test data.

Property (a)	Unit	Mark X if Provided	Attachment Number (b)	Value (c)			Measured or Estimate (M or E)	CBI Mark (X) (d)
				(solid)	(liquid)	(gas)		
Physical state of neat substance		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measured	
Vapor Pressure @ Temperature	25	°C	<input checked="" type="checkbox"/>	1.88E-10		Torr	Estimate	
Density/relative density			<input type="checkbox"/>			g/cm ³		
Solubility								
@ Temperature		°C	<input type="checkbox"/>			g/L		
Solvent								
Solubility in Water @ Temperature	25	°C	<input checked="" type="checkbox"/>	1.085		g/L	Estimate	
Melting Temperature			<input checked="" type="checkbox"/>	215		°C	Estimate	
Boiling / Sublimation temperature @	760	Torr	<input checked="" type="checkbox"/>	506		°C	Estimate	
Spectra			<input type="checkbox"/>					
Dissociation constant			<input type="checkbox"/>					
Octanol / water partition coefficient			<input checked="" type="checkbox"/>	-0.59			Estimate	
Henry's Law constant			<input checked="" type="checkbox"/>	4.21E-17			Estimate	
Volatilization from water			<input type="checkbox"/>					
Volatilization from soil			<input type="checkbox"/>					
pH@ concentration			<input type="checkbox"/>					
Flammability			<input type="checkbox"/>					
Explosibility			<input type="checkbox"/>					
Adsorption / Coefficient			<input checked="" type="checkbox"/>	1.438			Estimate	
Particle Size Distribution			<input type="checkbox"/>					
Other – Specify			<input type="checkbox"/>					