		AGENCY USE ONLY
United States ENVIRONMENTAL PROTECTION Washington, DC 20460	ENVIRONMENTAL PROTECTION AGENCY	
TSCA/SNAP ADDENDL for Significant New Altern		Expires: TBD
When completed send CBI and public versions of this form and attachments electronically via CD or USB drive (preferred), or		Date of Receipt:
print to:	, <i>.</i>	Case Number:
<u>Via US Postal Service:</u> SNAP Document Control Officer U.S. EPA Mail Code: 6205T 1200 Pennsylvania Ave, NW Washington DC 20460	<u>Via Delivery Ser</u> SNAP Document Cont U.S. EPA Stratospheric Protectio 4th Floor, 4355FF (M 1201 Constitution A Washington, DC 2	rol Officer on Division IC 6205T) ve., NW

Part I: Introduction and CBI Information

Section A: Introduction

GENERAL INSTRUCTIONS

This form may be used in conjunction with the Premanufacture Notice (PMN) for new chemical substances (EPA Form 7710-25 (Rev. 1-19)) to submit chemicals for review under the Significant New Alternatives Policy (SNAP) program as alternatives to Class I and II ozone-depleting substances. In addition to the information provided in the Premanufacture Notice, the Agency is requesting submitters provide information on the following topics. This information will assist EPA in assessing the acceptability of the chemical as an alternative to ozone-depleting substances as required by Section 612 of the Clean Air Act. Please see the Instructions for the TSCA/SNAP Addendum ("Instructions") for guidance on completing this form. The Instructions document is available at http://www.epa.gov/ozone/snap/submit/index.html.

To facilitate Agency review of alternatives, both this form and the complete PMN form (including the physical and chemical properties worksheet) must be filled out as completely as possible. Please provide all information requested to the extent that it is known or reasonably ascertainable. Make reasonable estimates if actual data are unavailable. **Be sure to provide the PMN form as an attachment when submitting the TSCA/SNAP Addendum.**

This form contains a Response Checker that identifies questions that are missing responses. Please review the questions that are missing responses carefully to ensure that all required information is provided before submitting this form to EPA. Please note that this checker is not an indicator of whether EPA will consider the submission complete, but rather, this checker is an indicator of whether all questions have been answered prior to submission.

Section B: Identification of Alternatives

1. Name of Alternative. Note: Additional information about the proposed substitute must be provided in Part III, Section A.

CBI

2. Indicate the sector and end-use for which you are submitting this TSCA/SNAP Addendum.

Sector(s)	Sector(s) End-Use(s)	If you chose "Other" as an end-use, please specify here.	

Part I: Introduction and CBI Information

CBI

3. PMN Form. Is the PMN form provided as an attachment to this TSCA/SNAP Addendum?

If no, please provide an explanation.

Section C: CONFIDENTIALITY CLAIMS

Anyone submitting data which are to be treated as Clean Air Act Confidential Business Information (CBI), must assert and substantiate a claim of confidentiality at the time of the initial submission. All information claimed as CBI will be treated in a manner consistent with 40 CFR Part 2, Subpart B. Failure to assert and substantiate a claim of confidentiality at substantiate a claim of confidentiality at substantiate a claim of confidential to assert and substantiate a claim of confidentiality at the time of submission may result in disclosure of information by the Agency without further notice.

To assert a claim on this form, [bracket] the information you claim as confidential and mark the confidential box in the column on the right-side of the corresponding row. If any information is claimed as confidential, you must substantiate those claims below and provide both the confidential version and a "sanitized" version of this notice, including attachments, to EPA at the time of the initial submission.

Information submitted as CBI may be accessed by companies designated as Authorized Representatives of the United States Environmental Protection Agency (EPA) under an EPA contract for the purpose of assisting EPA in the development and implementation of national regulations for the protection of stratospheric ozone, including the evaluation of SNAP Information Notices. These Authorized Representatives may have access to any information received by the Stratospheric Protection Division within the EPA's Office of the Atmospheric Programs. Access to such information is necessary to ensure that these companies can complete the work required by the contract. Such Authorized Representatives of the Administrator are subject to the provisions of 42 U.S.C. 7414(c) respecting confidential business information as implemented by 40 CFR 2.301(h).

For any portion of a submission that you claim as confidential, please provide the following information as part of the Statement of Data Confidentiality Claims.

1. Please provide the reasons why the cited passages qualify for confidential treatment.

2. If you assert that disclosure of this information would be likely to result in substantial harmful effects to you, describe those harmful effects and explain why they should be viewed as substantial.

3. Indicate the length of time—until a specific date or event, or permanently—for which the information should be treated as confidential.

4. Identify the measures you have taken to guard against undesired disclosure of this information.

5. Describe the extent to which the information has been disclosed, and what precautions have been taken in connection with these disclosures.

6. Are copies of any determinations of confidentiality previously made by EPA, other Federal agencies, or courts concerning this information enclosed?

ADDITIONAL STATEMENT OF DATA CONFIDENTIALITY CLAIMS Please provide any additional information on confidentiality claims below.

Paperwork Reduction Act Notice

OMB Control No. 2060-0226

Approval expires TBD

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2060-0226). Responses to this collection of information are mandatory (40 CFR part 82, subpart G). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 31 hours per response. Send comments on the Agency's need this formation, 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, Regulatory Support Division, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

TSCA/SNAP ADDENDUM

Part II: Contact Information

Section A - Submitter Contact Information

1. Person Submitting Notice (in U.S.): Enter information for the official who signs the certification in Part VII Certification.

Name of Authorized Official	Title	CBI
Company/Organization		CBI
Mailing Address	Telephone Number	CBI
Email Address		CBI

2. Agent (if applicable): Complete only if you authorize an agent to assist you in preparing this notice. The agent must also sign the certification.

Name of Authorized Official	Title	CBI
Company/Organization		CBI
Mailing Address	Telephone Number	CBI
Email Address		CBI
Is this person granted full access to Confidential Business Information?		

3. Technical Contact (in U.S.): If applicable and if the technical contact is not the authorized agent, identify a person who can provide EPA with additional technical information on the substitute during the review period.

Name of Authorized Official	Title	CBI
Company/Organization		CBI
Mailing Address	Telephone Number	CBI
Email Address		CBI
Is this person granted full access to Confidential Business Information?		

4. Joint Submitter (if applicable): Identify the joint submitter, if any, who is authorized by the primary submitter to provide some of the information required in the notice.

Name of Authorized Official	Title	CBI
Company/Organization		CBI
Mailing Address	Telephone Number	CBI
Email Address		CBI
Is this person granted full access to Confidential Business Information?		

CONFIDENTIALITY CLAIMS: All contacts listed on this page will be granted access to CBI, unless otherwise noted.

TSCA/SNAP ADDENDUM

Part III: General Information

Section A: Alternative-Specific Information

1. Identify Proposed Substitute

(a) Chemical name (preferably IUPAC nomenclature)	(b) Percent composition (by weight)	(c) Chemical Abstracts Service (CAS) registry number	(d) Molecular formula	СВІ
2. Commercial/trade name(s) of alternative:				CBI

3. Generic name: Provide a generic name that is specific enough to identify the substance uniquely and could potentially be used for listing the substitute in the Federal Register.

4. Ozone-depletion potential (ODP): Provide the 100-year ODP of the proposed substitute relative to CFC-11. If the substitute is a blend, provide the ODPs of the individual constituents. Reference the source for each ODP.

Proposed substitute (If blend, include ODP of each constituent)	(a) ODP relative to CFC-11		Information sources	CBI
) Provide any additional data on the ODP of the proposed substitute (e.g. chlorine or bromine loading potentials). Reference the source of is information and attach any supporting documentation.		Supporting documentation attached?	Attachment name	СВІ

5. Global Warming Characteristics: Provide the alternative's global warming potential relative to carbon dioxide over a 100-year time horizon and atmospheric lifetime. Reference the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC AR4). Alternate sources may include the 2010 World Meteorological Organization (WMO) Scientific Assessment of Ozone Depletion or the peer-reviewed literature. If the substitute is a blend, provide the GWPs of the individual constituents and an estimate of the blend at its nominal composition.

Proposed substitute (If blend, include GWP of each constituent)	(a) 100-yea (Relative to car		(b) Atmospheric lifetime	Informatio	n sources	СВІ
(c) Provide any additional data on the G absorption spectrum and in	WP of the alternative, including infrared frared absorption capacity.	Supporting documentation attached?	(d) If the proposed substitute or any components of a bl of another manufacturing or industrial process, indicate		Supporting documentation attached?	СВІ

6. VOC Status Information:					CBI
Is the substitute exempt from the definition of volatile organic compound (VOC) under CAA regulations (see 40 CFR 51.100(s)) addressing the development of State Implementation Plans (SIPs) to attain and intain the national ambient air quality standards?					
For blends, which components, if any, are exempt from the definition of VOC at 40 CFR 51.100(s)?					CBI
(c) Has a petition for VOC exemption been submitted? If so, provide details below (e.g., date of submission).	:) Has a petition for VOC exemption been submitted? If so, provide details below (e.g., date of submission).				CBI
(d) For compounds that are not VOC exempt, provide information on the reactivity of the compound(s) in the atr	nosphere, including the maxim	um incremental reactivity in grar	ns of $O_{_3}$ per gram of VOC and the	e kOH (298 K) value.	CBI
Proposed Substitute/Component	MIR (g O ₃ /g VOC)	kOH (298 K) value	Other	References	

7. Byproducts: Describe any byproducts resulting from the manufacture or processing of the chemical alternative or chemicals used in the new alternative. If there are unidentified byproducts enter "unidentified." Indicate when the byproduct is formed (e.g., during manufacturing, during processing) and the amount formed.

(a) Byproduct Chemical Name	(b) Percent Composition (by weight)	(c) CAS registry number	(d) When is product formed?	(e) Amount Formed (g)	СВІ

8. Degradation Products: Describe any degradation products resulting from the use or disposal of the chemical alternative or chemicals used in the new alternative. If there are unidentified degradation products enter "unidentified." Indicate when the degradation product is formed (e.g., during use, in contact with fire, following disposal) and the rate at which it is formed.

(a) Degradation Product Chemical Name	(b) Percent Composition (by weight)	(c) CAS registry number	(d) When is product formed?	(e) Rate of Formation (g/s)	СВІ
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Section B: End-Use and Application Information

1. Specific End-Use(s): Identify each end-use that may be reasonably anticipated for the alternative. If the alternative is a refrigerant, indicate whether the refrigerant is a candidate for use in retrofits of existing equ

Intersection I	Sector	End-Use	Application	Mark all end-uses and applications that apply	(a) New (N) Equipment, Retrofit (R)Equipment, or both (N,R)? Please disregard if proposed substitute is not a refrigerant.	(b) ODS (and/or other substances) being replaced	(c) Replacement ratio (lb: lb)	СВІ
Induction Number of the Respiration (IPC) Induction Respiration Respiration (IPC) Induction Respiration Respiratio			Centrifugal					
Industrial Process Air Conditioning Image: Stating Rinks Image: Stating Rinks Image: Stating Rinks Image: Stating Rinks Image: Rinks		Chillers (Commercial Comfort AC)	(includes Reciprocating, Screw,					
ce Stating Rinks read Refrigeration image: stating Rinks read Refrigeration rea		Industrial Process Refrigeration (IPR)						
Cold Storage Warehouses Food Refrigeration Image: Cold Storage Warehouses Food Refrigeration Image: Cold Storage Warehouses		Industrial Process Air Conditioning						
Cold Storage Warehouses Non-Food Refrigeration Image: Cold Storage Warehouses Image:		Ice Skating Rinks						
Non-food Refrigeration Image: Control (Refrigeration (Refrigeratio			Food Refrigeration					
Refrigerated Transport Refrigerated Shipping Containers Image: Containe		Cold Storage Warehouses	Non-Food Refrigeration					
Refrigerated Transport Refrigeration Equipment within Image: Control (Control (Contro) (Contro) (Control (Control (Control (Control (Control			Refrigerated Trailers (Reefers)					
Ship holds Image: Sh			Refrigerated Shipping Containers					
uight-Duty Vehicle (e.g., food delivery, ice cream truck) Image: content of the second		Refrigerated Transport	Refrigeration Equipment within Ship holds					
Retail Food Refrigeration Medium Temperature Stand-ance Unit S (* 0°C) (e.g., self-contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers, glass door merchandisers) Image: Contained equipment such as individual reach-in coolers glass door merchandisers) Image: Contained equipment such as individual reach-in coolers glass door merchandisers) Image: Contained equipment (E.g., lice cream makers, chilid bipers; frozen beverage dispensers) Image: Contained equipment (E.g., lice cream makers, chilid bipers; frozen beverage dispensers) Image: Contained equipment (E.g., lice cream makers, chilid bipers; frozen beverage dispensers) Image: Contained equipment (E.g., lice cream makers, chilid bipers; frozen beverage dispensers) Image: Contained equipment (E.g., lice cream makers, chilid bipers; frozen beverage dispensers) Image:			Light-Duty Vehicle (e.g., food					
Retail Food Refrigeration Image: Content of Content o			Supermarket System, Direct					
Retail Food Refrigeration Units (< 0.°C) (e.g., self-contained equipment such as individual reach-in coolers, glass door merchandisers)			Supermarket System, Indirect					
Retail Food Refrigeration alone Units (or °C) (e.g., self-contained equipment such as individual reach-in coolers, glass door merchandisers) Remote Condensing Units for Walk-in Coolers or Multiple Reach-in Coolers (glass of the condensing Equipment (e.g., incomparing Equipm			Units (< 0 °C) (e.g., self-contained equipment such as individual reach-in coolers, glass door					
Walk-in Coolers or Multiple Reach-in Coolers Image: Coolers of Multiple Refrigerated Food Processing and Dispensing Equipment (e.g., ice cream makers, chilled beverage dispensers, frozen beverage dispensers) Image: Coolers of Multiple Refrigerated Food Processing and Dispension Equipment (e.g., ice cream makers, chilled		Retail Food Refrigeration	alone Units (>0 °C) (e.g., self- contained equipment such as individual reach-in coolers, glass					
ice cream makers, chilled beverage dispensers, frozen beverage dispensers)			Walk-in Coolers or Multiple					
Vending Machines			ice cream makers, chilled beverage dispensers, frozen					
		Vending Machines						

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	Drinking Water Coolers	Water Fountain affixed to wall or ground			
		Stand-alone Water Coolers			
		Self-contained Ice Machines			
	Commercial Ice Machines	Ice Machines with remote			
		condenser			
		Household Refrigerator and Freezers			
	Household Refrigerators and Freezers	Small Refrigerators (e.g., chilled kitchen drawers, wine coolers, home beverage centers, and mini-fridges)			
Refrigeration and Air Conditioning		Room Air Conditioners (such as window units, packaged terminal air conditioners (PTAC) and heat pumps (PTHP), and portable self- contained air conditioners)			
		Mini-Splits, Non-Ducted			
		Multi-Splits, Non-Ducted			
	Residential and Light Commercial Air				
	Conditioning and Heat Pumps	Split-Systems, Ducted, Household (Central A/C)			
		Split-Systems, Ducted, Light Commercial (Central A/C)			
		Packaged Rooftop Units			
		Water-Source Air Conditioning and Heat Pumps			
		Ground-Source Air Conditioning and Heat Pumps			
	Residential Dehumidifiers				
	Motor Vehicle Air Conditioning	Light-duty Vehicles (e.g., passenger cars)			
		Light-duty Trucks (e.g., minivans, full size pick-up trucks, and full-size SUVs)			
		Heavy-duty Vehicles (e.g., heavy- duty pickup trucks and vans, and commercial medium and heavy- duty on-highway vehicles)			
		Off-road Vehicles (e.g., farm and construction equipment)			
		Buses and Passenger Rail			
	Non-mechanical Heat Transfer	Thermosiphon			
		Recirculating Coolers			
	Mechanical Heat Transfer	Organic Rankine Cycle (ORC) Refrigeration systems that maintain temperatures at -80°F			
		(-62 °C) or lower (e.g., medical freezers, freeze dryers).			
		Uranium Isotope Separation Processing			
	Other (specify)	Medical and Laboratory Refrigeration Equipment (low/medium temperature that maintain temperatures above - 80 °F (-62 °C))			
	Rigid Polyurethane: Appliance				
	Rigid Polyurethane: Appliance Rigid Polyurethane: Spray				
	Rigid Polyurethane: Commercial Refrigeration				
	Rigid Polyurethane: Sandwich Panels				
	Rigid Polyurethane: Slabstock and Other				
	Rigid Polyurethane & Polyisocyanurate				
Foam Blowing	Laminated Boardstock				
I	Flexible Polyurethane				

	Integral Skin Polyurethane				
	Polystyrene: Extruded Sheet				
	Polystyrene: Extruded Boardstock & Billet				
	Polyolefin				
	Phenolic Insulation Board & Bunstock				
	Other (specify)				
	Metal cleaning				
Cleaning Solvents	Electronics cleaning				
	Precision cleaning				
	Total Flooding Agents	Normally Occupied Areas			
Fire Suppression and Explosion Protection		Normally Unoccupied Areas			
	Streaming Applications				
		Consumer			
	Propellants	Technical			
Aerosols		Medical			
Aerosois		Consumer			
	Solvents	Technical			
		Medical			
Sterilization	Sterilant				
	Adhesives				
Adhesives, Coatings, and Inks	Coatings				
	Inks				
Tobacco Expansion	Tobacco Expansion				

2. End-Use Specific Standards: List any standard-setting organizations (U.S. or ANSI/ISO) that will evaluate the proposed substitute and/or equipment in the proposed end-use(s) and identify the associated standard.

Standard-Setting Organization	End-Use	Application	Standard number and title	Status (e.g., under development, final)	CBI
American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) (e.g., ASHRAE 15)					
Underwriters Laboratories (UL) (e.g., UL 484, UL 60335-2-24)					
Society of Automotive Engineers (SAE) International					
Other (e.g., International Electrochemical Commission (IEC), International Organization for Standardization (ISO)), National Fire Protection Association (NFPA)					

3. Technology Changes and Costs: Describe any new equipment technology changes and associated costs that will be necessary in order to use the proposed substitute.

End-Use	Application	(a) Technology changes to use alternative and address material compatibility issues when retrofitting	(b) Capital costs associated with proposed substitute, alternative process, new equipment, and/or new materials	(c) Changes in labor and energy costs	(d) Ongoing operational costs of equipment	СВІ

4. Production and Market Share: Provide estimated information on production of the proposed substitute by end-use. If possible, estimate the percentage of the market held by the ODS being replaced that will be captured by this proposed substitute.

End-Use	Application	(a) Year proposed substitute or technology will be commercially available (or note if currently available)	(b) Anticipated annual production for the end- use in the first year (kg)	(c) Years until maximum market penetration	(d) Maximum annual production at market penetration	(e) Anticipated market share at maximum market penetration (%)	CBI

5. Energy Efficiency: Provide the alternative's impact on energy efficiency relative to the substance it is replacing in similar applications for refrigeration, air conditioning, or foam blowing. Attach documentation, if available.

End-Use	Application	Energy efficiency (+/- X%) relative to substance(s) being replaced	Supporting documentation attached?	СВІ

Section C: Flammability

1. Flammability-Related Physical and Chemical Properties. Provide information on the physical and chemical properties relevant to evaluating the flammability of the proposed substitute. Please note: If a property is only required for specific sectors, it is noted in parentheses. Also, if any parameter has also been provided in the PMN form, it does not need to be repeated here.		СВІ	
(a) Lower flammability limit (LFL) (using ASTM E681)		ppm or %	

(b) Upper flammability limit (UFL) (using ASTM E681)	ppm or %
(c) Flashpoint	°C
(d) Heat of combustion	kJ/kg
(e) Maximum pressure of combustion (refrigeration and air conditioning, and cleaning solvents only)	atm
(f) Maximum rate of pressure increase during combustion (refrigeration and air conditioning only for refrigerants designated as ASHRAE flammability class 2, 2L, or 3)	
(g) Minimum ignition energy (refrigeration and air conditioning only)	Joules
(h) Critical temperature (refrigeration and air conditioning only)	°C
(i) Critical pressure (refrigeration and air conditioning only)	atm
(j) Explosive range (LEL/UEL) (cleaning solvents, aerosols, sterilants, and adhesives coatings and inks only)	ppm or %
(k) Vapor pressure (cleaning solvents, aerosols, sterilants and adhesives, coatings, and inks only)	@ 20°C

2. Flammability Assessments and Test Data.

For All Flammable Substitutes	Summary of results	Attached?	CBI
	our indiana and a second se	Allacheu:	00.
(a) Results of ASTM E681 for flammability limits in air (include temperature at which test was conducted in summary of results)			
(b) Additional analyses (optional)			
For Refrigerants Only			
(c) Fault Tree Analysis or Failure Mode and Effects Analysis (Required for each end-use if flammable)			
(d) Risk assessment for all end-uses, consumer and occupational (technician) exposure (Required if flammable)			
(e) Fractionation during Leakage (Required if proposed substitute is a blend with flammable components)			

3. Flammability Concerns and Mitigation: Provide any information on flammability concerns and mitigation measures.

3. Flammability Concerns and Mitigation: Provide any information on flammability concerns and mitigation measures.			CBI
(a) Detail any abatement techniques that are used to minimize the risks associated with flammable substances or mixtures:			
(b) For flammable foam blowing agents used in spray foam, provide a training program that addresses flammability concerns	Attached?		
(c) Additional information on flammability concerns and mitigation measures:			

Note: Information claimed as confidential should be placed in [brackets] and marked as CBI. If information is claimed as CBI, then a public version of the submission must be submitted with the bracketed information redacted or removed.

TSCA/SNAP ADDENDUM

Part IV: Sector-Specific Information

Section A: Refrigeration and Air Conditioning

1. Application of Proposed Substitute. If the substitute is proposed for use in the refrigeration and air-conditioning sector (as specified in Part III, Section B, Number 1), please provide information on the equipment lifetime, charge size, associated room size, and associated equipment size anticipated. Note: If personal monitoring data is provided, you are not required to respond to questions (d) through (f) below.

End-Use	Application	(a) Equipment Lifetime (years)	(b) Typical charge size (kg)	(c) Maximum charge size (kg)	(d) Equipment capacity (kWh, tons)	СВІ
1)						
2)						
3)						
End-Use	Applicatio	on	(d) Typical room size (m³)	(e) Minimum room size (m ³)	(f) Anticipated room air exchange rate (ACH)	СВІ
1) cont'd						
2) cont'd						
3) cont'd						

2. Additional End-Use Description: Please describe the specific uses for which you are applying. For example, what is the equipment layout and where is the refrigerant located? Is it a direct expansion unit and/or does it use a secondary loop? In what types of locations will the equipment be used (e.g., for refrigeration this could include supermarkets, convenience stores, and/or restaurants)? Is the equipment for low, medium or high temperature refrigeration or air conditioning? Is air conditioning for the purpose of human comfort cooling or another application?

3. Compressor Oil: If the proposed substitute is a refrigerant, provide information on the chemical class of refrigerant oil you anticipate will be used (e.g., polyalkylene glycol, polyolester, mineral oil, etc.) and information on refrigerant/oil solubility.

Section B: Foam Blowing

1. Application of Proposed Substitute. If the substitute is proposed for use in the foam blowing sector (as specified in Part III, Section B, Number 1), please provide information on the amount of blowing agent, associated room size, and associated equipment size anticipated. Note: If you provide personal monitoring data, you are not required to respond to questions (c) through (e) below.

End-Use	(a) Typical amount of blowing agent (kg)	(b) Maximum amount of blowing agent (kg)	(c) Typical room size (m³)	(d) Minimum room size (m³)	(e) Anticipated room air exchange rate (ACH)	СВІ

2. Additional End-Use Description: Please describe the specific uses for which you are applying. For example, what type of material will be blown? What method or type of equipment is used for foam blowing? Who will be using the foam blowing agent/equipment? Will the foam blowing agent be used by consumers or restricted to commercial use? For spray foams, how many components are used? Will the alternative be used in high or low pressure spray foam?	CBI

Section C: Cleaning Solvents

1. Application of Proposed Substitute. If the substitute is proposed for use the cleaning solvent sector (as specified in Part III, Section B, Number 1), please provide information on the following. Note: If you provide personal monitoring data, you are not required to respond to questions (a) through (b) below.

End-Use	(a) Provide information on the leak-tightness of the equipment (e.g., typical and maximum leak rate of equipment)	(b) Anticipated room air exchange rate (ACH)	СВІ

2. Additional End-Use Description: Please describe the specific uses for which you are applying. For example, what type of work pieces will be cleaned? What type of equipment will be used to perform cleaning (e.g., open top vapor degreaser, vacuum sealed equipment, conveyorized equipment)? Where will the cleaning occur (e.g., commercial or industrial setting)? Please note that this end-use does not include manual cleaning or textile cleaning.

3. Compatibility: Provide information on the compatibility of the proposed substitute with metals and plastics.

CBI

CBI

Section D: Fire Suppression

Part IV: Sector-Specific Information

1. Application of Proposed Substitute. If the substitute is proposed for use in the fire suppression and explosion protection sector (as specified in Part III, Section B, Number 1), please provide information on the charge size, associated room size, and associated equipment size anticipated. Note: If personal monitoring data is provided, you are not required to respond to questions (d) through (f) below.

End-Use	Application	(a) Typical charge size (kg)	(b) Maximum charge size (kg)	(c) Identify the discharge rate (g/s) of the fire extinguishing device	СВІ
End-Use	Application	(d) Typical room size (m³)	(e) Minimum room size (m³)	(f) Anticipated room air exchange rate (ACH)	СВІ

2. Additional End-Use Description: Please describe the specific uses for which you are applying. For example, what is the method of distribution (e.g., localized, sprinkler system, handheld, gaseous)? Is it a clean agent? Is the agent aerosolized? Where will the fire suppression system be installed (e.g., marine, aviation, data center)? Where will handheld extinguishers be intended for use (e.g., residential, commercial, aviation)? CBI

Section E: Aerosols

1. Application of Proposed Substitute. If the substitute is proposed for use in the aerosols sector (as specified in Part III, Section B, Number 1), please provide information on the charge size and associated aerosols can size anticipated.

End-Use	Application	(a) Typical amount of substitute per can (g)	(b) Maximum amount of substitute per can (g)	(c) Typical total weight of aerosol Can (g)	(d) Maximum total weight of aerosol can (g)	СВІ

2. Additional End-Use Description: Please describe the specific uses for which you are applying. For example, in what type of products will the substitute be used (e.g., personal care, automotive, electrical contact cleaner,	CBI
degreaser, medical adhesive spray, MDI)?	СЫ
	_

3. Consumer Use: Please indicate whether the proposed substitute will be used for consumer use. If yes, describe the anticipated consumer applications

Section F: Sterilants

1. Application of Proposed Substitute. If the substitute is proposed for use in the sterilants sector (as specified in Part III, Section B, Number 1), please provide information on the amount and associated room size anticipated.

End-Use	(a) Provide information on the leak-tightness of the equipment (e.g., maximum and typical leak rate of equipment)	(b) Anticipated room air exchange rate (ACH)	CBI		
Additional End-lise Description: Please describe the specific uses for which you are applying. For example, how is the sterilant applied (e.g., sterilization shampers)?					

Additional End-Use Description: Please describe the specific uses for which you are applying. For example, how is the sterilant applied (e.g., sterilization chambers)?

Section G: Adhesives, Coatings & Inks

1. Application of Proposed Substitute. If the substitute is proposed for the adhesives, coatings, and inks sector (as specified in Part III, Section B, Number I), please provide information on the associated dispenser size anticipated for the proposed substitute in the proposed end-use(s).

(c) Typical total weight of (a) Typical amount per dispenser (b) Maximum amount per (d) Maximum total weight CBI End-Use Application (g or %) dispenser (g or %) dispenser (g) of dispenser (g)

2. Additional End-Use Description: Please describe the specific use for which you are applying. For example, in what type of products will the substitute be used for adhesives (e.g., laminate, hardwood flooring, flexible foam, tire patch, metal to rubber, marine); coatings (e.g., metal coatings, wood stains, aerospace coating), or inks (e.g., flexographic printing, rotogravure printing)? What is the application method (e.g., spray gun, aerosol can, dip tank)? CBI

ner Use: Please indicate whether the proposed substitute will be used for consumer use. If yes, describe the anticipated consumer applications 3. Co

CBI

CBI

Note: Information claimed as confidential should be placed in [brackets] and marked as CBI. If information is claimed as CBI, then a public version of the submission must be submitted with the bracketed information redacted or removed.

Part V: Additional Information

Please provide any additional information in this section.

Note: Information claimed as confidential should be placed in [brackets] and marked as CBI. If information is claimed as CBI, then a public version of the submission must be submitted with the bracketed information redacted or removed.

Part VI: Attachments

United States ENVIRONMENTAL PROTECTION AGENCY Washington, DC 20460

TSCA/SNAP ADDENDUM

Part VI: Attachments

Identify attachments below.

Select (X) in the CBI box next to any attachment that contains information you claim as confidential. The public version of the submission form must include the attachment name/citation at a minimum. All claims of confidentiality must be substantiated in Part I, Section C.

#	Attachment Name/Citation	Associated Section of TSCA/SNAP Addendum (Part/Section/Question)	Number of Pages	СВІ
	Pre-manufacture Notice or Significant New Use Notice			
	Claim of TSCA CBI information as "Clean Air Act Confidential Business Information"			

Note: Information claimed as confidential should be placed in [brackets] and marked as CBI. If information is claimed as CBI, then a public version of the submission must be submitted with the bracketed information redacted or removed.

RESPONSE CHECKER

This checker identifies questions that are missing responses. Please review the questions that are missing responses carefully to ensure that all required information is provided before submitting this form to EPA. Please note that this checker is not an indicator of whether EPA will consider the submission complete, but rather, this checker is an indicator of whether all applicable questions have been answered prior to submission. You may determine that some questions are not applicable to your application, in which case it may be appropriate for the response checker to determine such questions to be incomplete.

Part I: Introduction and CBI Information	
Section B: Identification of Alternatives	Please fill out: 1. Name of Alternative 2. Indicate the sector and end-use for which you are submitting this TSCA/SNAP Addendum. 3. PMN Form.
Section C: CONFIDENTIALITY CLAIMS	Please fill out: 1. Please provide the reasons why the cited passages qualify for confidential treatment. 2. If you assert that disclosure of this information would be likely to result in substantial harmful effects to you, describe those harmful effects and explain why they should be viewed as substantial. A. Indicate the length of time—until a specific date or event, or permanently—for which the information should be treated as confidential. 4. Identify the measures you have taken to guard against undesired disclosure of this information. 5. Describe the extent to which the information has been disclosed, and what precautions have been taken in connection with these disclosures.6. Are copies of any determinations of confidentially previously made by EPA, other Federal agencies, or courts concerning this information enclosed?
Part II: Contact Information	
Section A - Submitter Contact Information	Please fill out: 1. Person Submitting Notice (in U.S.) 2. Agent (if applicable) 3. Technical Contact (in U.S.) 4. Joint Submitter (if applicable)
Part III: General Information	
Section A: Alternative-Specific Information	Please fill out: 1. Identify Proposed Substitute 2. Commercial/trade name(s) of alternative 3. Generic name4. Ozone-depletion potential (ODP)5. Global Warming Characteristics6. VOC Status Information 7. Byproducts 8. Degradation Products
Section B: End-Use and Application Information	Please fill out: 2. End-Use Specific Standards 3. Technology Changes and Costs 4. Production and Market Share 5. Energy Efficiency
Section C: Flammability	Please fill out: 1. Flammability-Related Physical and Chemical Properties 2. Flammability Assessments and Test Data. For All Flammable Substitutes 2. Flammability Assessments and Test Data. For Refrigerants Only 3. Flammability Concerns and Mitigation

Part IV: Sector-Specific Information

Section A: Refrigeration and Air Conditioning

Section B: Foam Blowing

Section C: Cleaning Solvents

Section D: Fire Suppression

Section E: Aerosols

Section F: Sterilants

Section G: Adhesives, Coatings & Inks

Part VII: Certification

United States ENVIRONMENTAL PROTECTION AGENCY Washington, DC 20460

TSCA/SNAP ADDENDUM

Part VII: Certification

I certify to the best of my knowledge and belief that:

1. All information provided in this notice is complete and truthful as of the date of the submission.

2. I am submitting with this notice all test data in my possession or control and a description of all other data known to or reasonably ascertainable by me.

3. If this is a submission of a new alternative, the company named in Part I, Question 1a of this notice:

(a) intends to manufacture, formulate, import, market, or use a new alternative to a Class I or Class II ozone-depleting substance which is identified in Part I, Section B, Question 2.

(b) seeks an acceptability determination on a new alternative(s) to a Class I or Class II ozone-depleting substance, which is identified in Part I, Section B, Question 2.

4. The accuracy of the statements made in this notice reflects my best prediction of the anticipated facts regarding the alternative described herein. Any knowing and willful misinterpretation is subject to criminal penalty pursuant to section 113(c) of the Clean Air Act and 18 U.S.C.§1001.

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

Signature of Authorized Official (Original Signature Required):	Date
Print Name and Title of Authorized Official:	Date
Signature of Agent (Where Applicable):	Date
Print Name and Title of Authorized Official:	Date