local, or tribal governments in the aggregate.

EPA's final action here does not impose upon the states any federal intergovernmental mandate, as defined in section 101 of the Unfunded Mandates Act. No additional costs to State, local, or tribal governments, or to the private sector, result from this action, which deletes or eases the indicated requirements. Thus, EPA has determined that this final action does not include a mandate that may result in estimated costs of $100 million or more to either State, local or tribal governments in the aggregate, or to the private sector.

Finally, since EPA here is merely removing or revising superfluous requirements, their deletion from the CFR does not affect requirements under the Paperwork Reduction Act.

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by April 27, 1998.

V. Submission to Congress and the General Accounting Office

Under 5 U.S.C. 801(a)(1)(A) as added by the Small Business Regulatory Enforcement Fairness Act of 1996, EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Controller General of the General Accounting Office prior to the publication of the rule in today's **Federal Register**. This rule is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 51

Environmental protection, Air pollution control.

Dated: February 6, 1998.

Carol M. Browner,

Administrator.

Part 51, Chapter I, Title 40 of Code of Federal Regulations is amended as follows:

PART 51—[AMENDED]

1. The authority citation for part 51 continues to read as follows:

Authority: 42 U.S.C. 7401–7671 *et seq.*

Subpart F—Procedural Requirements

2. Section 51.100(o) (3) is revised to read as follows:

§ 51.100 Definitions.

* * * * *

(o) * * *

(3) Alternative means of providing for attainment and maintenance of such standard. (This provision defines RACT for the purposes of § 51.341(b) only.)

* * * * *

§ 51.103 [Amended]

3. Section 51.103 is amended by removing the last sentence in paragraph (a), and removing paragraphs (a)(1) and (a)(2).

[FR Doc. 98–3884 Filed 2–23–98; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 82

[FRL–5969–7]

Protection of Stratospheric Ozone

AGENCY: Environmental Protection Agency.

ACTION: Notice of Acceptability.

SUMMARY: This document expands the list of acceptable substitutes for ozone-depleting substances (ODS) under the U.S. Environmental Protection Agency's (EPA) Significant New Alternatives Policy (SNAP) program.

EFFECTIVE DATE: February 24, 1998.

ADDRESSES: Information relevant to this document is contained in Air Docket A–91–42, Central Docket Section, South Conference Room 4, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. Telephone: (202) 260–7548. The docket may be inspected between 8:00 a.m. and 5:30 p.m. weekdays. As provided in 40 CFR Part 2, a reasonable fee may be charged for photocopying.

FOR FURTHER INFORMATION CONTACT: Carol Weisner at (202) 564–9193 or fax (202) 565–2095, U.S. EPA, Stratospheric Protection Division, 401 M Street, S.W., Mail Code 6205J, Washington, D.C. 20460; EPA Stratospheric Ozone Protection Hotline at (800) 296–1996; EPA World Wide Web Site (http://www.epa.gov/ozone/title6/snap).

SUPPLEMENTARY INFORMATION:

I. Section 612 Program

A. Statutory Requirements

Section 612 of the Clean Air Act authorizes EPA to develop a program for evaluating alternatives to ozone-depleting substances. EPA refers to this program as the Significant New Alternatives Policy (SNAP) program. The major provisions of section 612 are:

- *Rulemaking*—Section 612(c) requires EPA to promulgate rules making it unlawful to replace any class I (chlorofluorocarbon, halon, carbon tetrachloride, methyl chloroform, methyl bromide, and hydrobromofluorocarbon) or class II (hydrochlorofluorocarbon) substance with any substitute that the Administrator determines may present adverse effects to human health or the environment where the Administrator has identified an alternative that (1) reduces the overall risk to human health and the environment, and (2) is currently or potentially available.
- *Listing of Unacceptable/Acceptable Substitutes*—Section 612(c) also requires EPA to publish a list of the substitutes unacceptable for specific uses. EPA must publish a corresponding list of acceptable alternatives for specific uses.
- *Petition Process*—Section 612(d) grants the right to any person to petition EPA to add a substance to or delete a substance from the lists published in accordance with section 612(c). The Agency has 90 days to grant or deny a petition. Where the Agency grants the petition, EPA must publish the revised lists within an additional 6 months.
- *90-day Notification*—Section 612(e) requires EPA to require any person who produces a chemical substitute for a class I substance to notify the Agency not less than 90 days before new or *existing* chemicals are introduced into interstate commerce for significant new uses as substitutes for a class I substance. The producer must also provide the Agency with the producer's unpublished health and safety studies on such substitutes.
- *Outreach*—Section 612(b)(1) states that the Administrator shall seek to maximize the use of federal research facilities and resources to assist users of class I and II substances in identifying and developing alternatives to the use of such substances in key commercial applications.
- *Clearinghouse*—Section 612(b)(4) requires the Agency to set up a public clearinghouse of alternative chemicals, product substitutes, and alternative manufacturing processes that are available for products and manufacturing processes which use class I and II substances.

B. Regulatory History

On March 18, 1994, EPA published the Final Rulemaking (FRM) (59 FR

13044) which described the process for administering the SNAP program and issued EPA's first acceptability lists for substitutes in the major industrial use sectors. These sectors include: refrigeration and air conditioning; foam blowing; solvent cleaning; fire suppression and explosion protection; sterilants; aerosols; adhesives, coatings and inks; and tobacco expansion. These sectors compose the principal industrial sectors that historically consumed the largest volumes of ozone-depleting compounds.

As described in the final rule for the SNAP program (59 FR 13044), EPA does not believe that rulemaking procedures are required to list alternatives as acceptable with no limitations. Such listings do not impose any sanction, nor do they remove any prior license to use a substance. Consequently, by this notice EPA is adding substances to the list of acceptable alternatives without first requesting comment on new listings.

EPA does, however, believe that Notice-and-Comment rulemaking is required to place any substance on the list of prohibited substitutes, to list a substance as acceptable only under certain conditions, to list substances as acceptable only for certain uses, or to remove a substance from either the list of prohibited or acceptable substitutes. Updates to these lists are published as separate notices of rulemaking in the **Federal Register**.

The Agency defines a ''substitute'' as any chemical, product substitute, or alternative manufacturing process, whether existing or new, that could replace a class I or class II substance. Anyone who produces a substitute must provide the Agency with health and safety studies on the substitute at least 90 days before introducing it into interstate commerce for significant new use as an alternative. This requirement applies to substitute manufacturers, but may include importers, formulators or end-users, when they are responsible for introducing a substitute into commerce.

EPA published Notices listing acceptable alternatives on August 26, 1994 (59 FR 44240), January 13, 1995 (60 FR 3318), July 28, 1995 (60 FR 38729), February 8, 1996 (61 FR 4736), September 5, 1996 (61 FR 47012), March 10, 1997, and June 3, 1997, and published Final Rulemakings restricting the use of certain substitutes on June 13, 1995 (60 FR 31092), May 22, 1996 (61 FR 25585), and October 16, 1996 (61 FR 54030).

II. Listing of Acceptable Substitutes

This section presents EPA's most recent acceptable listing decisions for substitutes for class I and class II substances in the following industrial sectors: refrigeration and air conditioning, foam blowing, aerosols, and solvent cleaning. In this Notice, EPA has split the refrigeration and air conditioning sector into two parts: substitutes for class I substances and substitutes for class II substances. For copies of the full list, contact the EPA Stratospheric Protection Hotline at (800) 296–1996.

Parts A through D below present a detailed discussion of the substitute listing determinations by major use sector. Tables summarizing today's listing decisions are in Appendix A. The comments contained in Appendix A provide additional information on a substitute, but for listings of acceptable substitutes, they are not legally binding under section 612 of the Clean Air Act. Thus, adherence to recommendations in the comments is not mandatory for use as a substitute. In addition, the comments should not be considered comprehensive with respect to other legal obligations pertaining to the use of the substitute. However, EPA encourages users of acceptable substitutes to apply all comments to their use of these substitutes. In many instances, the comments simply allude to sound operating practices that have already been identified in existing industry and/or building-code standards. Thus, many of the comments, if adopted, would not require significant changes in existing operating practices for the affected industry.

A. Refrigeration and Air Conditioning: Class I

1. Clarification

a. Secondary Loop Systems

In the Notice published on March 10, 1997 (62 FR 10700), EPA stated that it would not review secondary loop fluids under the SNAP program. In the final rule of June 13, 1995 (60 FR 31092), however, EPA listed the first set of acceptable substitute refrigerants for heat transfer fluids. EPA has received requests to further clarify the distinction between the use of a fluid in a secondary fluid system (which is not regulated under SNAP), and the use of such a fluid in a heat exchange system (which is regulated under SNAP).

A key characteristic of a secondary loop system is that it contains, as an integral part, a system that moves heat from a cooled area to a warmer one, thereby reversing the natural flow of heat. The secondary loop simply carries heat as an adjunct to the primary loop's effect. For example, in a building chiller, the primary loop uses a vapor compression or other cycle to refrigerate water. This chilled water then circulates throughout the building and fans blow air over the cold pipes to air condition occupied spaces. Under the SNAP program, EPA reviews the refrigerant used in the primary system, but not the fluid used to carry the chill throughout the building. Note that a secondary loop moves heat from a warmer area to a cooler one. Thus, neither loop within a cascade refrigeration system is considered a secondary loop.

In contrast, a heat transfer system's primary effect is to move heat from a warmer area to a cooler one. Thus, the heat transfer fluid is the primary refrigerant and it delivers the actual cooling. An example of this type of system is a thermosyphon transformer. A liquid heat transfer fluid absorbs heat from hot electrical components, vaporizes, and rises into a cooling heat exchanger, where it gives off the heat to the surrounding air. There are also heat transfer systems that rely on a pump, but their primary function is still to move heat in the direction it naturally flows. In essence, a heat transfer system augments or assists natural heat flow as the primary effect, rather than augmenting a primary loop that reverses the natural heat flow.

b. Definition of MVAC Under SNAP

Under the SNAP program, the motor vehicle air conditioning (MVAC) end-use includes all forms of air conditioning that provide cooling to the passenger compartments in moving vehicles. This definition includes both MVACS, defined at 40 CFR 82.32, and MVAC-like equipment, defined at 40 CFR 82.152. EPA regulations issued under sections 608 and 609 of the Clean Air Act distinguished between MVACS and MVAC-like equipment for purposes of refrigerant recycling and handling. EPA includes both in the SNAP MVAC end-use and has relied on this definition since the original SNAP rule of March 18, 1994 (59 FR 13044); today's Notice simply clarifies this definition. All use conditions, unacceptability findings, and other regulatory actions for this end-use apply equally to on-road vehicles, such as automobiles and trucks, and to off-road vehicles, such as tractors, combines, construction, and mining equipment.

c. Use of Adapters With Refrigerant Identifiers in MVACs

In the June 3, 1997 SNAP Notice (62 FR 32075), EPA clarified that manifold gauge sets may be used with multiple refrigerants, provided that for each refrigerant there is a separate set of hoses with permanently attached

fittings unique to that refrigerant. Today, EPA further clarifies that refrigerant identifiers may be used with multiple refrigerants under the same proviso. The connection between the identifier or similar service equipment and the service hose may be standardized and work with multiple hoses. For each refrigerant, the user must attach a hose to the identifier that has a fitting unique to that refrigerant permanently attached to the end going to the vehicle. Adapters may not be attached for one refrigerant and then removed and replaced with the fitting for a different refrigerant. The guiding principle is that once attached to a hose, the fitting is permanent and is not removed. This procedure allows identifiers and other service equipment to be used with more than one refrigerant while still preventing the attachment and detachment of unique fittings from hoses. Note that for recovery, recycling, or other equipment used to transfer refrigerant, hoses must include shutoff valves and must have the refrigerant recovered prior to changing hoses from one refrigerant to another, but for low-flow devices like refrigerant identifiers, there are no such requirements.

2. Acceptable Substitutes

Note that EPA acceptability does not imply that an acceptable substitute is technically viable or has been optimized for a given type of equipment within an end-use. Engineering expertise must be used to determine the appropriate use of substitutes for ozone depleting chemicals. In addition, although some alternatives are listed as acceptable substitutes for multiple refrigerants, they may not be appropriate for use in all equipment or under all conditions.

a. Self-Chilling Cans Using Carbon Dioxide as the Refrigerant

Self-chilling cans using carbon dioxide are acceptable substitutes for CFC–12, R–502, and HCFC–22 in retrofitted and new household refrigeration, transport refrigeration, vending machines, cold storage warehouses, and retail food refrigeration.

This technology represents a product substitute intended to replace several types of refrigeration equipment. A self-chilling can includes a heat transfer unit that performs the same function as one half of the traditional vapor-compression refrigeration cycle. The unit contains a charge of refrigerant that is released to the atmosphere when the user activates the cooling unit. As the refrigerant is released to the atmosphere it absorbs heat from the can's contents and evaporates, thus cooling the liquid inside the can. Because this process provides the same cooling effect as household refrigeration, transport refrigeration, vending machines, cold storage warehouses, or retail food refrigeration, it is a substitute for CFC–12, R–502, or HCFC–22 in these systems.

In a recent Notice of Proposed Rulemaking, EPA proposed that self-chilling cans using HFC–134a or HFC–152a as the refrigerant were unacceptable substitutes (63 FR 5491; February 3, 1998). In contrast to HFC–134a, which has a global warming potential (GWP) of 1300, CO_2 has a GWP of 1. Therefore, the potential impact of CO_2 use in self-chilling cans versus HFC–134a will be much lower. In addition, the submitter indicates that the self-chilling cans will use CO_2 either recovered as a by-product from other industrial activities or taken from the atmosphere, thus further reducing the net impact.

CO_2 exhibits very high pressures compared to some other refrigerants including HFC–134a. The submitter indicated that an alternative technology would prevent internal pressures within the heat exchange unit from exceeding 150 psig. EPA believes that this design is within acceptable limits, since this pressure will exist within the heat exchange unit rather than the outer can containing the beverage; if this pressure is transmitted to the can (which is not expected), existing beverage cans are designed to withstand equivalent pressure. In addition, tabs used to open existing cans are designed to open automatically at 200 psig, providing a safety valve if high pressures do develop.

EPA's determination that self-chilling cans using CO_2 are acceptable substitutes in the end-uses listed above is based on the maximum design pressure of 150 psig and the intent to use CO_2 recaptured from other activities or from the atmosphere. EPA invites information about the pressures actually found in self-chilling cans once they are produced and on the specific sources for CO_2. If either the cans exceed 150 psig in pressure or use newly produced CO_2, EPA may revisit today's decision.

b. THR–01

THR–01, composed of HCFC–22 and HFC–152a, is acceptable as a substitute for CFC–12 in the following new systems:

- Household Refrigerators
- Household Freezers

Because this blend contains an HCFC, it contributes to ozone depletion. However, this concern is mitigated by the scheduled phaseout of this chemical. Regulations regarding recycling and reclamation issued under section 608 of the Clean Air Act (58 FR 28660) apply to this blend. This blend is flammable, but significantly less so than pure HFC–152a. A risk assessment showed that HFC–152a can be safely used in newly designed household refrigerators and freezers; since HFC–152a is listed as acceptable in these end-uses, and THR–01 poses lower flammability risk than pure HFC–152a, THR–01 is also acceptable. The GWP of HFC–152a is much less than that of HCFC–22; again, since HCFC–22 is listed as acceptable, THR–01 is also acceptable.

c. FRIGC FR–12

FRIGC FR–12, which consists of HCFC–124, HFC–134a, and butane, is acceptable as a substitute for R–500 in the following new and retrofitted end-uses:

- Centrifugal Chillers
- Reciprocating Chillers
- Industrial Process Refrigeration
- Cold Storage Warehouses
- Refrigerated Transport
- Retail Food Refrigeration
- Vending Machines
- Water Coolers
- Commercial Ice Machines
- Residential Dehumidifiers

and as a substitute for CFC–12 in centrifugal chillers.

This blend contains HCFC–124. Therefore, it contributes to ozone depletion, but to a much lesser degree than R–500. Regulations regarding recycling and reclamation issued under section 608 of the Clean Air Act (58 FR 28660) apply to this blend. The GWPs of the components are moderate to low. This blend is nonflammable, and leak testing has demonstrated that the blend never becomes flammable.

d. Galden Fluids

Galden Fluids, which contain perfluoroethers and perfluorocarbons, are acceptable substitutes for CFC–11, CFC–12, CFC–113, CFC–114, and CFC–115 in retrofitted heat transfer systems. Perfluorocarbons (PFCs) offer high dielectric resistance, noncorrosivity, thermal stability, materials compatibility, chemical inertness, low toxicity, and nonflammability. In addition, they do not contribute to ground-level ozone formation or stratospheric ozone depletion. The principal characteristic of concern for PFCs is that they have long atmospheric lifetimes and have the potential to contribute to global climate change.

PFCs are also included in the Climate Change Action Plan, which broadly instructs EPA to use section 612 of the Clean Air Act, as well as voluntary programs, to control emissions. Despite these concerns, EPA is listing PFCs as acceptable in retrofitted heat transfer applications because they may be the only substitutes that can satisfy safety or performance requirements. For example, a transformer may require very high dielectric strength, or a heat transfer system for a chlorine manufacturing process could require compatibility with the process stream.

In cases where users must adopt PFCs (or PFC-containing blends like the Galden Fluids) to transition out of ozone depleting chemicals, they should make every effort to:

- Recover and recycle these fluids during servicing;
- Adopt maintenance practices that reduce leakage as much as is technically feasible;
- Recover these fluids after the end of the equipment's useful life and either recycle them or destroy them; and
- Continue to search for other long-term alternatives.

Users of PFCs should note that if other alternatives become available, EPA could be petitioned to list PFCs as unacceptable due to the availability of other suitable substitutes. If such a petition were granted, EPA may grandfather existing uses upon consideration of cost and timing of testing and implementation of new substitutes. EPA urges industry to develop new alternatives for this end-use that do not contain substances with such high GWPs and long lifetimes.

e. R–508A and R–508B

R–508A and R–508B, both of which contain HFC–23 and R–116, are acceptable as substitutes for CFC–13, R–13B1, and R–503 in retrofitted and new very low temperature refrigeration and industrial process refrigeration. Notices published on July 28, 1995 (60 FR 38729) and Feb. 8, 1996 (61 FR 4736) listed R–508 as acceptable in these end-uses. At the time of these listings, only R–508 was available. Since then, two blends with the same components in different percentages have entered the market. Today's Notice expands the acceptable listing to include both R–508A and R–508B.

B. Foam Blowing

1. Acceptable Substitutes

Under section 612 of the Clean Air Act, EPA is authorized to review substitutes for class I (CFCs) and class II (HCFCs) chemicals. The following listing expands the list of acceptable substitutes for CFCs and HCFCs in integral skin applications.

a. Polyurethane Integral Skin Foam

(a) Formic Acid

Formic acid is an acceptable substitute for CFCs and HCFCs in polyurethane integral skin foam. Formic acid is more flammable than CFCs and HCFCs but less flammable than hydrocarbons such as n-pentane and cyclopentane which are currently used in foam blowing. Use of formic acid may require additional investment to assure safe handling and shipping as prescribed by OSHA and DOT. The TVL–TWA for formic acid is 5 ppm and a 15-minute TLV–STEL of 10 ppm. Formic acid has no ODP and very low or zero global warming potential (GWP). It is a volatile organic compound (VOC) and must be controlled as such under Title I of the Clean Air Act. Relevant consumer product and other safety requirements necessary for use of formic acid-blown integral skin foam would have to be met.

(b) Acetone

Acetone is an acceptable substitute for CFCs and HCFCs in polyurethane integral skin foam. Acetone is more flammable than CFCs and HCFCs but less flammable than hydrocarbons such as n-pentane and cyclopentane which are currently used for foam blowing. Use of acetone may require additional investment to assure safe handling and shipping as prescribed by OSHA and DOT. The OSHA PEL–TWA for acetone is 750 ppm and a 15-minute STEL of 1000 ppm. Acetone has no ODP and very low or zero global warming potential (GWP). Acetone has been excluded from the definition of a VOC under Title I of the Clean Air Act (60 FR 31633; 6/15/95) but may be subject to state or local controls. Relevant consumer product and other safety requirements necessary for use of acetone-blown integral skin foam would have to be met.

C. Aerosols

1. Acceptable Substitutes

Organic solvents can be used to replace CFC–11, CFC–113, and MCF, in certain cleaning operations. This classification category of chemicals was previously determined under the SNAP program to include C6–C20 petroleum hydrocarbons (both naturally and synthetically derived) (59 FR 13044).

Under section 612 of the Clean Air Act, EPA is authorized to review substitutes for class I (CFCs) and class II (HCFCs) chemicals. The following decision expands the existing acceptable listing for petroleum hydrocarbons as substitutes for CFCs and HCFCs in aerosols solvents to include petroleum hydrocarbon C5.

(a) Aerosol Solvent

(1) Petroleum Hydrocarbon (C5)

Petroleum hydrocarbon C5 is an acceptable substitute for CFCs and HCFCs in aerosol solvents. Petroleum hydrocarbons are fractionated from the distillation of petroleum. These compounds are loosely grouped into paraffins or aliphatic hydrocarbons and light aromatics (toluene and xylene) and come in various stages of purity. Components with up to twenty carbons are now also being used in an effort to reduce flammability. These compounds have good solvent properties, are relatively inexpensive, and are readily available from chemical distributors. When a controlled substance is used only as a diluent, such as automotive undercoatings, substitution using petroleum hydrocarbons can be achieved with minor reformulation. Many of these products containing petroleum hydrocarbons have been reported to be comparable to or to outperform their chlorinated counterparts.

Petroleum hydrocarbons are, however, flammable and thus cannot be used as replacement solvents in applications where the solvent must be nonflammable such as electronic cleaning applications. In addition, pesticide aerosols formulated with certain petroleum hydrocarbons must adhere to requirements imposed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

2. Clarification

(a) n-Propyl-Bromide

Review of the SNAP submission docket control number VI–D–114 for n-propyl-bromide has disclosed that a submission for the Aerosol sector has yet to be received. As such, all distribution and sale into this area must cease until a complete submission is obtained and the necessary review period has elapsed.

D. Solvent Cleaning

1. Clarification

a. Hydrofluoroether (HFE): $C_4F_9OCH_3$

In reference to the **Federal Register** dated September 5, 1996, HFE 7100 was characterized as exhibiting moderate toxicity (61 FR 47012). This Notice serves to inform users that additional toxicity data indicate that a characterization of low toxicity is now

warranted. This revision is made based on the 600 ppm 8-hr Time Weighted Average workplace standard set by the manufacturer. As with workplace exposure standards for other CFC alternatives, this standard will be examined by the Workplace Environmental Exposure Limit subcommittee of the American Industrial Hygiene Association.

b. Definition of Solvent Cleaning End Uses

In reference to the **Federal Register** dated March 18, 1994, the solvents cleaning sector was subdivided into three end uses; metals cleaning, electronics cleaning, and precision cleaning. This notice serves to further clarify the definition of these end uses in order to avoid any confusion as to user placement.

(1) Electronics Cleaning

Primarily the removal of flux residues from wiring assemblies after a soldering operation has been completed. This is considered a high value end use application where performance is critical.

(2) Metals Cleaning

The removal of a wide variety of contaminants from metal objects during a manufacturing or maintenance process. At each stage in the manufacturing process contaminants must be removed from the piece to ensure a clean metal surface for the next step in the production process or for final consumption. These parts tend to be metal objects ranging from fully assembled aircraft down to small metal parts stamped out in high volume. These contaminants are most often greases, cutting oils, coatings, large particles, and metal chips.

(3) Precision Cleaning

Applies to components and surfaces of any composition for which an extremely high level of cleanliness is necessary to ensure satisfactory performance during the manufacturing process or in final consumption. This end use is characterized as very high value end use segment based on a non-cost criteria. Examples of such criteria would be: high value products, protection or safeguarding of human life, compatibility concerns with plastics, temperature and mechanical stress limitations, precision mechanical assemblies/components with demanding machining tolerances or complex geometries, and base or mix of metals readily pitted, corroded, eroded or otherwise compromised.

2. Acceptable Substitutes

Under Section 612 of the Clean Air Act, EPA is authorized to review substitutes for class I (CFCs) and class II (HCFCs) chemicals. The following listing expands the list of acceptable petroleum hydrocarbon substitutes for CFCs, HCFCs and MCF as used in semiaqueous and straight organic solvent cleaning to include C5.

(a) Metals, Precision and Electronics Cleaning

(1) Semi-aqueous

Petroleum hydrocarbon C5 is an acceptable substitute for CFCs and HCFCs in semi-aqueous solvents. Semi-aqueous cleaners are alternatives for cleaning in all three SNAP solvent cleaning end-uses. These cleaners employ hydrocarbons/surfactant either emulsified in water solutions or applied in concentrated form and then rinsed with water. As both approaches involve water as part of the formulation, the system is commonly referred to as ''semi-aqueous.'' The principal categories of chemicals used in this formulation were previously defined under the SNAP program as terpenes, C6–C20 petroleum hydrocarbons (both naturally or synthetically derived), or oxygenated solvents (such as alcohols) (59 FR 13044). This determination expands petroleum hydrocarbons to include C5.

An extensive discussion of various semi-aqueous cleaning alternatives may be found in the Industry Cooperative for Ozone Layer Protection (ICOLP) documents on the subject. Users can obtain these documents from the EPA Stratospheric Protection Hotline at 1–800–296–1996.

(b) Straight Organic Solvent Cleaning

(1) Petroleum Hydrocarbon (C5)

Petroleum hydrocarbon C5 is an acceptable substitute for CFCs and HCFCs as a straight organic solvent. Organic solvents can be used to replace CFC–113 and MCF in certain cleaning operations. This classification is defined to include terpenes, C5–C20 petroleum hydrocarbons (both naturally and synthetically derived), and oxygenated organic solvents such as alcohols, ethers, (including propylene glycol ethers), esters and ketones. These compounds are commonly used in solvent tanks at room temperature, although the solvents can also be used in-line cleaning systems or be heated to increase solvency power. If heated, the solvents must be used in equipment designed to control vapor losses.

These solvents, unlike class I and II compounds, do not contribute to stratospheric ozone depletion, and generally have short atmospheric lifetimes. Yet many of the organic solvents are regulated as VOCs because they can contribute to ground level ozone formation. In addition, certain of the organic solvents are toxic to human health and are subject to waste handling standards under the Resource Conservation and Recovery Act (RCRA) and to workplace standards set by Occupational Safety and Health Administration (OSHA). For example, xylene and toluene may be used as substitutes but are, once they become wastes, regulated under RCRA as listed or characteristic wastes.

E. Adhesives, Coatings & Inks

1. Clarification

(a) n-Propyl-Bromide

Review of the SNAP submission, docket control number VI–D–114, for n-propyl-bromide has disclosed that a submission for the Adhesives, Coatings & Inks sector has yet to be received. As such, all distribution and sale into this sector must cease until a complete submission is obtained and the mandatory 90-day review period has elapsed.

III. Additional Information

Contact the Stratospheric Protection Hotline at 1–800–296–1996, Monday–Friday, between the hours of 10:00 a.m. and 4:00 p.m. (Eastern Standard Time).

For more information on the Agency's process for administering the SNAP program or criteria for evaluation of substitutes, refer to the SNAP final rulemaking published in the **Federal Register** on March 18, 1994 (59 FR 13044). **Federal Register** notices can be ordered from the Government Printing Office Order Desk (202) 783–3238; the citation is the date of publication. This Notice may also be obtained on the World Wide Web at http://www.epa.gov/ozone/title6/snap/snap.html.

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Act of 1996, does not apply because this action is not a rule, as that term is defined in 5 U.S.C. 804(3).

List of Subjects in 40 CFR Part 82

Environmental Protection, Administrative Practice and Procedure, Air Pollution Control, Reporting and Record keeping Requirements.

Dated: February 12, 1998.

Richard D. Wilson,

Acting Assistant Administrator for Air and Radiation.

Note: The following Appendix will not appear in the Code of Federal Regulations.

Appendix A: Summary of Acceptable Decisions

End-use	Substitute	Decision	Comments
Refrigeration and Air Conditioning			
CFC–12, R–502, and HCFC–22 Household Refrigeration, Transport Refrigeration, Vending Machines, Cold Storage Warehouses, and Retail Food Refrigeration (Retrofit and New).	Self-chilling cans using carbon dioxide.	Acceptable.	This decision is based on a maximum design pressure of 150 psig and the use of CO_2 captured from either other industrial activities or the atmosphere.
CFC–12 Household Refrigerators and Freezers (New).	THR01	Acceptable.	
R–500 Centrifugal and Reciprocating Chillers, Industrial Process Refrigeration, Cold Storage Warehouses, Refrigerated Transport, Retail Food Refrigeration, Vending Machines, Water Coolers, Commercial Ice Machines, and Residential Dehumidifers, and CFC–12 Centrifugal Chillers (Retrofit and New).	FR–12	Acceptable	
CFC–11, CFC–12, CFC–113, CFC–114, CFC–115 Non-Mechanical Heat Transfer (Retrofit).	Galden Fluids	Acceptable	The principal environmental characteristic of concern for PFCs is that they have high GWPs and long atmospheric lifetimes.
CFC–13, R–13B1, and R–503 Very Low Temperature Refrigeration and Industrial Process Refrigeration (Retrofit and New).	R–508A and R–508B	Acceptable	This listing expands the prior determination for R–508 to R–508A and R–508B.
Foam Blowing			
CFCs and HCFCs, Polyurethane Integral Skin.	Formic Acid	Acceptable	Formic acid is flammable thus additional investment may be required to ensure safe handling, use and shipping for flammable materials. Formic acid is a VOC and subject to control under Title I of the Clean Air Act.
	Acetone	Acceptable	Acetone is flammable thus additional investment may be required to ensure safe handling, use and shipping.
Aerosol			
CFC–11, CFC–113, MCF, and HCFC–141b as aerosol solvents.	C5–C20 Petroleum hydrocarbons	Acceptable	Petroleum hydrocarbons are flammable. Use with the necessary precautions. Pesticides aerosols must adhere to FIFRA standards.
Solvent Cleaning			
Metals cleaning w/CFC–113, MCF	Straight organic solvent cleaning with petroleum hydrocarbon C5.	Acceptable	OSHA standards must be met, if applicable.
	Semi-aqueous cleaners	Acceptable	EPA effluent guidelines must be met.
Electronics cleaning w/CFC–113, MCF	Straight organic solvent cleaning with petroleum hydrocarbon C5.	Acceptable	OSHA standards must be met, if applicable.
	Semi-aqueous cleaners	Acceptable	EPA effluent guidelines must be met.
Precision Cleaning w/CFC–113, MCF	Straight organic solvent cleaning with petroleum hydrocarbon C5.	Acceptable	OSHA standards must be met, if applicable.
	Semi-aqueous cleaners	Acceptable	EPA effluent guidelines must be met.

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