99-514 require an amendment to any plan, such plan amendment shall not be required to be made before the first plan year beginning on or after Jan. 1, 1989, see section 1140 of Pub. L. 99-514, as amended, set out as a note under section 401 of this title.

TRANSITION RULES

Pub. L. 99–514, title XI, 1177, Oct. 22, 1986, 100 Stat. 2520, as amended by Pub. L. 100–647, title I, 1011B(l)(1), (2), Nov. 10, 1988, 102 Stat. 3493, provided that:

"(a) SECTION 1171.—The amendments made by section 1171 [amending this section and sections 56, 108, 401, and 404 of this title and repealing sections 41 and 6699 of this title] shall not apply in the case of a tax credit employee stock ownership plan if—

"(1) such plan was favorably approved on September 23, 1983, by employees, and

"(2) not later than January 11, 1984, the employer of such employees was 100 percent owned by such plan.

"(b) SUBTTLE NOT TO APPLY TO CERTAIN NEWS-PAPER.—The amendments made by section 1175 [amending section 401 of this title] shall not apply to any daily newspaper—

``(1) which was first published on December 17, 1855, and which began publication under its current name in 1954, and

"(2) which is published in a constitutional home rule city (within the meaning of section 146(d)(3)(C) of the Internal Revenue Code of 1986) which has a population of less than 2,500,000."

Pub. L. 100-647, title I, \$1011B(l)(3), Nov. 10, 1988, 102 Stat. 3493, provided that: "If any newspaper corporation described in section 1177(b) of the Reform Act [section 1177(b) of Pub. L. 99-514, set out above], as amended by this subsection, pays in cash a dividend within 60 days after the date of the enactment of this Act [Nov. 10, 1988] to the corporation's employee stock ownership plans and if a corporate resolution declaring such dividend was adopted before November 30, 1987, and such resolution specifies that such dividend shall be contingent upon passage by the Congress of technical corrections, then such dividend (to the extent the aggregate amount so paid does not exceed \$3,500,000) shall be treated as if it had been declared and paid in 1987 for all purposes of the Internal Revenue Code of 1986."

Accounting for Investment Credit in Certain Fi-Nancial Reports and Reports to Federal Agencies

Pub. L. 92-178, title I, §101(c), Dec. 10, 1971, 85 Stat. 499, as amended by Pub. L. 98-369, div. A, title IV, §450(a), July 18, 1984, 98 Stat. 818; Pub. L. 99-514, §2, Oct. 22, 1986, 100 Stat. 2095, provided that:

"(1) IN GENERAL.—It was the intent of Congress in enacting, in the Revenue Act of 1962 [see Short Title of 1962 Amendment note set out under section 1 of this title], the investment credit allowed by section 38 of the Internal Revenue Code of 1986 [formerly I.R.C. 1954], and it is the intent of the Congress in restoring that credit in this Act [section 50 of this title], to provide an incentive for modernization and growth of private industry. Accordingly, notwithstanding any other provision of law, on and after the date of the enactment of this Act [Dec. 10, 1971]—

"(A) no taxpayer shall be required to use, for purposes of financial reports subject to the jurisdiction of any Federal agency or reports made to any Federal agency, any particular method of accounting for the credit allowed by such section 38 [this section], and

"(B) a taxpayer shall disclose, in any such report, the method of accounting for such credit used by him for purposes of such report.

"(2) EXCEPTIONS.—Paragraph (1) shall not apply to taxpayers who are subject to the provisions of section 46(e) of the Internal Revenue Code of 1986 (as added by section 105(c) of this Act) or to section 203(e) of the Revenue Act of 1964 (as modified by section 105(e) of this Act) [set out as note below]." [Pub. L. 98-369, div. A, title IV, §450(b), July 18, 1984, 98 Stat. 818, provided that: "The amendments made by this section [amending this note] shall take effect as if included in the Revenue Act of 1971."]

TREATMENT OF INVESTMENT CREDIT BY FEDERAL REGULATORY AGENCIES

Pub. L. 88-272, title II, §203(e), Feb. 26, 1964, 78 Stat. 35, as amended by Pub. L. 99-514, §2, Oct. 22, 1986, 100 Stat. 2095, provided that: "It was the intent of the Congress in providing an investment credit under section 38 of the Internal Revenue Code of 1986 [formerly I.R.C. 1954] and it is the intent of the Congress in repealing the reduction in basis required by section 48(g) of such Code to provide an incentive for modernization and growth of private industry (including that portion thereof which is regulated). Accordingly, Congress does not intend that any agency or instrumentality of the United States having jurisdiction with respect to a taxpayer shall, without the consent of the taxpayer, use—

"(1) in the case of public utility property (as defined in section 46(c)(3)(B) of the Internal Revenue Code of 1986, more than a proportionate part (determined with reference to the average useful life of the property with respect to which the credit was allowed) of the credit against tax allowed for any taxable year by section 38 of such Code, or

"(2) in the case of any other property, any credit against tax allowed by section 38 of such Code,

to reduce such taxpayer's Federal income taxes for the purpose of establishing the cost of service of the taxpayer or to accomplish a similar result by any other method."

Section 203(e) of Pub. L. 88–272, not applicable to public utility property to which section 46(e) of this title applies, see section 105(e) of Pub. L. 92–178, set out as a note under section 46 of this title.

§ 39. Carryback and carryforward of unused credits

(a) In general

(1) 1-year carryback and 20-year carryforward

If the sum of the business credit carryforwards to the taxable year plus the amount of the current year business credit for the taxable year exceeds the amount of the limitation imposed by subsection (c) of section 38 for such taxable year (hereinafter in this section referred to as the "unused credit year"), such excess (to the extent attributable to the amount of the current year business credit) shall be—

(A) a business credit carryback to the taxable year preceding the unused credit year, and

(B) a business credit carryforward to each of the 20 taxable years following the unused credit year,

and, subject to the limitations imposed by subsections (b) and (c), shall be taken into account under the provisions of section 38(a) in the manner provided in section 38(a).

(2) Amount carried to each year

(A) Entire amount carried to first year

The entire amount of the unused credit for an unused credit year shall be carried to the earliest of the 21 taxable years to which (by reason of paragraph (1)) such credit may be carried.

(B) Amount carried to other 20 years

The amount of the unused credit for the unused credit year shall be carried to each of the other 20 taxable years to the extent that such unused credit may not be taken into account under section 38(a) for a prior taxable year because of the limitations of subsections (b) and (c).

(3) 5-year carryback for marginal oil and gas well production credit

Notwithstanding subsection (d), in the case of the marginal oil and gas well production credit—

(A) this section shall be applied separately from the business credit (other than the marginal oil and gas well production credit),

(B) paragraph (1) shall be applied by substituting "each of the 5 taxable years" for "the taxable year" in subparagraph (A) thereof, and

(C) paragraph (2) shall be applied—

(i) by substituting "25 taxable years" for "21 taxable years" in subparagraph (A) thereof, and

(ii) by substituting "24 taxable years" for "20 taxable years" in subparagraph (B) thereof.

(b) Limitation on carrybacks

The amount of the unused credit which may be taken into account under section 38(a)(3) for any preceding taxable year shall not exceed the amount by which the limitation imposed by section 38(c) for such taxable year exceeds the sum of—

(1) the amounts determined under paragraphs (1) and (2) of section 38(a) for such taxable year, plus

(2) the amounts which (by reason of this section) are carried back to such taxable year and are attributable to taxable years preceding the unused credit year.

(c) Limitation on carryforwards

The amount of the unused credit which may be taken into account under section 38(a)(1) for any succeeding taxable year shall not exceed the amount by which the limitation imposed by section 38(c) for such taxable year exceeds the sum of the amounts which, by reason of this section, are carried to such taxable year and are attributable to taxable years preceding the unused credit year.

(d) Transitional rule

No portion of the unused business credit for any taxable year which is attributable to a credit specified in section 38(b) or any portion thereof may be carried back to any taxable year before the first taxable year for which such specified credit or such portion is allowable (without regard to subsection (a)).

(Added Pub. L. 98-369, div. A, title IV, §473, July 18, 1984, 98 Stat. 828; amended Pub. L. 99-514, title II, §231(d)(3)(C)(i), title XVIII, §1846, Oct. 22, 1986, 100 Stat. 2179, 2856; Pub. L. 100-647, title I, §1002(l)(26), Nov. 10, 1988, 102 Stat. 3381; Pub. L. 101-508, title XI, §§11511(b)(2), 11611(b)(2), 11801(a)(2), Nov. 5, 1990, 104 Stat. 1388-485, 1388-503, 1388-520; Pub. L. 102-486, title XIX, §1914(c), Oct. 24, 1992, 106 Stat. 3023; Pub. L. 103-66, title XIII, §§13302(a)(2), 13322(d), 13443(b)(2), Aug. 10, 1993, 107 Stat. 555, 563, 569; Pub. L. 104-188, title I, §§1205(c), 1703(n)(1), Aug. 20, 1996, 110 Stat. 1775, 1877; Pub. L. 105–34, title VII, §701(b)(1), title X, §1083(a), Aug. 5, 1997, 111 Stat. 869, 951; Pub. L. 105–206, title VI, §6010(n), July 22, 1998, 112 Stat. 816; Pub. L. 106–554, §1(a)(7) [title I, §121(b)(2)], Dec. 21, 2000, 114 Stat. 2763, 2763A–610; Pub. L. 107–16, title VI, §619(c)(1), June 7, 2001, 115 Stat. 110; Pub. L. 108–357, title II, §245(b)(1), title III, §341(c), Oct. 22, 2004, 118 Stat. 1447, 1487; Pub. L. 109–135, title IV, §412(g), Dec. 21, 2005, 119 Stat. 2637; Pub. L. 111–240, title II, §2012(a), (b), Sept. 27, 2010, 124 Stat. 2554; Pub. L. 115–141, div. U, title IV, §401(b)(5)(E), (F), Mar. 23, 2018, 132 Stat. 1202.)

PRIOR PROVISIONS

A prior section 39 was renumbered section 34 of this title.

Another prior section 39 was renumbered section 37 of this title.

Amendments

2018—Subsec. (a)(3)(A). Pub. L. 115-141, §401(b)(5)(F), struck out "or the eligible small business credits" after "gas well production credit)".

Subsec. (a)(4). Pub. L. 115–141, §401(b)(5)(E), struck out par. (4) which related to 5-year carryback for eligible small business credits.

2010—Subsec. (a)(3)(A). Pub. L. 111-240, §2012(b), inserted "or the eligible small business credits" after "credit)".

Subsec. (a)(4). Pub. L. 111–240, 2012(a), added par. (4). 2005—Subsec. (a)(1)(A). Pub. L. 109–135, 412(g)(1), substituted "the taxable year" for "each of the 1 taxable years".

Subsec. (a)(3)(B). Pub. L. 109–135, §412(g)(2), amended subpar. (B) generally. Prior to amendment, subpar. (B) read as follows: 'paragraph (1) shall be applied by substituting '5 taxable years' for '1 taxable years' in subparagraph (A) thereof, and'.

2004—Subsec. (a)(3). Pub. L. 108-357, §341(c), added par. (3).

Subsec. (d). Pub. L. 108-357, §245(b)(1), amended heading and text of subsec. (d) generally, substituting provisions prohibiting carryback of the unused business credit attributable to a credit specified in section 38(b) for provisions prohibiting carryback of the enhanced oil recovery credit before 1991, sections 44, 45A, and 45B credits before their enactments, the renewable electricity production credit before its effective date, the empowerment zone employment credit, section 45C credit before July 1, 1996, DC Zone credits before their effective date, the new markets tax credit before Jan. 1, 2001, and the small employer pension plan startup cost credit before Jan. 1, 2002.

2001—Subsec. (d)(10). Pub. L. 107-16, §619(c)(1), added par. (10).

2000—Subsec. (d)(9). Pub. L. 106-554 added par. (9).

1998—Subsec. (a)(2). Pub. L. 105–206 amended Pub. L. 105–34, §1083(a)(2). See 1997 Amendment note below.

1997—Subsec. (a)(1). Pub. L. 105–34, §1083(a)(1), substituted "1-year" for "3-year" and "20-year" for "15year" in heading, "1 taxable" for "3 taxable" in subpar. (A), and "20 taxable" for "15 taxable" in subpar. (B).

(A), and "20 taxable" for "15 taxable" in subpar. (B). Subsec. (a)(2). Pub. L. 105–34, §1083(a)(2), as amended by Pub. L. 105–206, §6010(n), in subpar. (A), substituted "21 taxable" for "18 taxable", and in subpar. (B), substituted "20 years" for "17 years" in heading and "20 taxable" for "17 taxable" in text.

Subsec. (d)(8). Pub. L. 105–34, §701(b)(1), added par. (8). 1996—Subsec. (d)(5). Pub. L. 104–188, §1703(n)(1)(A), substituted "45A" for "45" in heading.

Subsec. (d)(6). Pub. L. 104–188, §1703(n)(1)(B), substituted "45B" for "45" in heading.

Subsec. (d)(7). Pub. L. 104–188, §1205(c), added par. (7). 1993—Subsec. (d)(4). Pub. L. 103–66, §13302(a)(2), added par. (4).

Subsec. (d)(5). Pub. L. 103-66, §13322(d), added par. (5). Subsec. (d)(6). Pub. L. 103-66, §13443(b)(2), added par. (6) 1992—Subsec. (d). Pub. L. 102–486 redesignated par. (5), relating to carryback of enhanced oil recovery credit, as (1), redesignated par. (5), relating to carryback of section 44 credit, as (2), and added par. (3).

1990—Subsec. (d)(1) to (4). Pub. L. 101–508, §11801(a)(2), struck out par. (1) which related to carryforwards from an unused credit year which did not expire before first taxable year beginning after Dec. 31, 1983, par. (2) which related to carrybacks in determining amount allowable as credit including net tax liability, par. (3) which related to similar rules for research credit under section 30, and par. (4) which provided for no carryback of lowincome housing credit before 1987.

Subsec. (d)(5). Pub. L. 101-508, 161(b)(2), added par. (5) relating to carryback of section 44 credit.

Pub. L. 101-508, §11511(b)(2), added par. (5) relating to carryback of enhanced oil recovery credit.

1988—Subsec. (d)(4). Pub. L. 100–647 added par. (4).

1986—Subsec. (d)(1)(A). Pub. L. 99-514, §1846(1), inserted "(as in effect before the enactment of the Tax Reform Act of 1984)".

Subsec. (d)(2)(B). Pub. L. 99-514, §1846(2), substituted "as defined in section 26(b)" for "as so defined in section 25(b)".

Subsec. (d)(3). Pub. L. 99-514, §231(d)(3)(C)(i), added par. (3).

EFFECTIVE DATE OF 2010 AMENDMENT

Pub. L. 111-240, title II, §2012(c), Sept. 27, 2010, 124 Stat. 2554, provided that: "The amendments made by this section [amending this section] shall apply to credits determined in taxable years beginning after December 31, 2009."

EFFECTIVE DATE OF 2004 AMENDMENT

Pub. L. 108-357, title II, §245(b)(2), Oct. 22, 2004, 118 Stat. 1448, provided that: "The amendment made by paragraph (1) [amending this section] shall apply with respect to taxable years ending after December 31, 2003."

Amendment by section 245(b) of Pub. L. 108-357 applicable to taxable years beginning after Dec. 31, 2004, see section 245(e) of Pub. L. 108-357, set out as a note under section 38 of this title.

Amendment by section 341(c) of Pub. L. 108-357 applicable to production in taxable years beginning after Dec. 31, 2004, see section 341(e) of Pub. L. 108-357, set out as a note under section 38 of this title.

EFFECTIVE DATE OF 2001 AMENDMENT

Amendment by Pub. L. 107–16 applicable to costs paid or incurred in taxable years beginning after Dec. 31, 2001, with respect to qualified employer plans first effective after such date, see section 619(d) of Pub. L. 107–16, set out as a note under section 38 of this title.

EFFECTIVE DATE OF 2000 AMENDMENT

Amendment by Pub. L. 106-554 applicable to investments made after Dec. 31, 2000, see 1(a) [title I, 121(e)] of Pub. L. 106-554, set out as a note under section 38 of this title.

EFFECTIVE DATE OF 1998 AMENDMENT

Amendment by Pub. L. 105-206 effective, except as otherwise provided, as if included in the provisions of the Taxpayer Relief Act of 1997, Pub. L. 105-34, to which such amendment relates, see section 6024 of Pub. L. 105-206, set out as a note under section 1 of this title.

Effective Date of 1997 Amendment

Pub. L. 105-34, title VII, §701(d), Aug. 5, 1997, 111 Stat. 869, provided that: "Except as provided in subsection (c) [amending table of subchapters for this chapter], the amendments made by this section [enacting subchapter W of this chapter and amending this section and section 1016 of this title] shall take effect on the date of the enactment of this Act [Aug. 5, 1997]."

Pub. L. 105-34, title X, 1083(b), Aug. 5, 1997, 111 Stat. 951, provided that: "The amendments made by this sec-

tion [amending this section] shall apply to credits arising in taxable years beginning after December 31, 1997."

EFFECTIVE DATE OF 1996 AMENDMENT

Amendment by section 1205(c) of Pub. L. 104-188 applicable to amounts paid or incurred in taxable years ending after June 30, 1996, see section 1205(e) of Pub. L. 104-188, set out as a note under section 45K of this title.

Pub. L. 104–188, title I, \$1703(o), Aug. 20, 1996, 110 Stat. 1878, provided that: "Any amendment made by this section [amending this section and sections 40, 59, 108, 117, 135, 143, 163, 904, 956A, 958, 1017, 1044, 1201, 1245, 1297, 1394, 1397B, 1561, 4001, 6033, 6427, 6501, 6655, and 9502 of this title, renumbering section 6714 of this title as section 6715, and amending provisions set out as notes under sections 38, 42, 197, and 1258 of this title and section 401 of Title 42, The Public Health and Welfare] shall take effect as if included in the provision of the Revenue Reconciliation Act of 1993 [Pub. L. 103–66, title XIII, ch. I, \$\$13001-13444] to which such amendment relates."

EFFECTIVE DATE OF 1993 AMENDMENT

Amendment by section 13322(d) of Pub. L. 103-66 applicable to wages paid or incurred after Dec. 31, 1993, see section 13322(f) of Pub. L. 103-66, set out as a note under section 38 of this title.

Amendment by section 13443(b)(2) of Pub. L. 103-66 applicable with respect to taxes paid after Dec. 31, 1993, with respect to services performed before, on, or after such date, see section 13443(d) of Pub. L. 103-66, as amended, set out as a note under section 38 of this title.

EFFECTIVE DATE OF 1992 AMENDMENT

Amendment by Pub. L. 102-486 applicable to taxable years ending after Dec. 31, 1992, see section 1914(e) of Pub. L. 102-486, set out as a note under section 38 of this title.

EFFECTIVE DATE OF 1990 AMENDMENT

Amendment by section 11511(b)(2) of Pub. L. 101-508 applicable to costs paid or incurred in taxable years beginning after Dec. 31, 1990, see section 11511(d)(1) of Pub. L. 101-508, set out as an Effective Date note under section 43 of this title.

Amendment by section 11611(b)(2) of Pub. L. 101-508 applicable to expenditures paid or incurred after Nov. 5, 1990, see section 11611(e)(1) of Pub. L. 101-508, set out as a note under section 38 of this title.

Effective Date of 1988 Amendment

Amendment by Pub. L. 100-647 effective, except as otherwise provided, as if included in the provision of the Tax Reform Act of 1986, Pub. L. 99-514, to which such amendment relates, see section 1019(a) of Pub. L. 100-647, set out as a note under section 1 of this title.

EFFECTIVE DATE OF 1986 AMENDMENT

Amendment by section 231(d)(3)(C)(i) of Pub. L. 99–514 applicable to taxable years beginning after Dec. 31, 1985, see section 231(g) of Pub. L. 99–514, set out as a note under section 41 of this title.

Amendment by section 1846 of Pub. L. 99-514 effective, except as otherwise provided, as if included in the provisions of the Tax Reform Act of 1984, Pub. L. 98-369, div. A, to which such amendment relates, see section 1881 of Pub. L. 99-514, set out as a note under section 48 of this title.

Effective Date

Section applicable to taxable years beginning after Dec. 31, 1983, and to carrybacks from such years, see section 475(a) of Pub. L. 98-369, set out as an Effective Date of 1984 Amendment note under section 21 of this title.

SAVINGS PROVISION

For provisions that nothing in amendment by Pub. L. 115–141 be construed to affect treatment of certain

transactions occurring, property acquired, or items of income, loss, deduction, or credit taken into account prior to Mar. 23, 2018, for purposes of determining liability for tax for periods ending after Mar. 23, 2018, see section 401(e) of Pub. L. 115-141, set out as a note under section 23 of this title.

For provisions that nothing in amendment by section 11801(a)(2) of Pub. L. 101-508 be construed to affect treatment of certain transactions occurring, property acquired, or items of income, loss, deduction, or credit taken into account prior to Nov. 5, 1990, for purposes of determining liability for tax for periods ending after Nov. 5, 1990, see section 11821(b) of Pub. L. 101-508, set out as a note under section 45K of this title.

PLAN AMENDMENTS NOT REQUIRED UNTIL JANUARY 1, 1989

For provisions directing that if any amendments made by subtitle A or subtitle C of title XI [§§ 1101-1147 and 1171-1177] or title XVIII [§§ 1800-1899A] of Pub. L. 99-514 require an amendment to any plan, such plan amendment shall not be required to be made before the first plan year beginning on or after Jan. 1, 1989, see section 1140 of Pub. L. 99-514, as amended, set out as a note under section 401 of this title.

§40. Alcohol, etc., used as fuel

(a) General rule

For purposes of section 38, the alcohol fuels credit determined under this section for the taxable year is an amount equal to the sum of—

(1) the alcohol mixture credit,

(2) the alcohol credit,

(3) in the case of an eligible small ethanol producer, the small ethanol producer credit, plus

(4) the second generation biofuel producer credit.

(b) Definition of alcohol mixture credit, alcohol credit, and small ethanol producer credit

For purposes of this section, and except as provided in subsection (h)—

(1) Alcohol mixture credit

(A) In general

The alcohol mixture credit of any taxpayer for any taxable year is 60 cents for each gallon of alcohol used by the taxpayer in the production of a qualified mixture.

(B) Qualified mixture

The term "qualified mixture" means a mixture of alcohol and gasoline or of alcohol and a special fuel which—

(i) is sold by the taxpayer producing such mixture to any person for use as a fuel, or (ii) is used as a fuel by the taxpayer pro-

ducing such mixture.

(C) Sale or use must be in trade or business, etc.

Alcohol used in the production of a qualified mixture shall be taken into account—

(i) only if the sale or use described in subparagraph (B) is in a trade or business of the taxpayer, and

(ii) for the taxable year in which such sale or use occurs.

(D) Casual off-farm production not eligible

No credit shall be allowed under this section with respect to any casual off-farm production of a qualified mixture.

(2) Alcohol credit

(A) In general

The alcohol credit of any taxpayer for any taxable year is 60 cents for each gallon of alcohol which is not in a mixture with gasoline or a special fuel (other than any denaturant) and which during the taxable year—

(i) is used by the taxpayer as a fuel in a trade or business, or

(ii) is sold by the taxpayer at retail to a person and placed in the fuel tank of such person's vehicle.

(B) User credit not to apply to alcohol sold at retail

No credit shall be allowed under subparagraph (A)(i) with respect to any alcohol which was sold in a retail sale described in subparagraph (A)(ii).

(3) Smaller credit for lower proof alcohol

In the case of any alcohol with a proof which is at least 150 but less than 190, paragraphs (1)(A) and (2)(A) shall be applied by substituting "45 cents" for "60 cents".

(4) Small ethanol producer credit

(A) In general

The small ethanol producer credit of any eligible small ethanol producer for any taxable year is 10 cents for each gallon of qualified ethanol fuel production of such producer.

(B) Qualified ethanol fuel production

For purposes of this paragraph, the term "qualified ethanol fuel production" means any alcohol which is ethanol which is produced by an eligible small ethanol producer, and which during the taxable year—

(i) is sold by such producer to another person—

(I) for use by such other person in the production of a qualified mixture in such other person's trade or business (other than casual off-farm production),

(II) for use by such other person as a fuel in a trade or business, or

(III) who sells such ethanol at retail to another person and places such ethanol in the fuel tank of such other person, or

(ii) is used or sold by such producer for any purpose described in clause (i).

(C) Limitation

The qualified ethanol fuel production of any producer for any taxable year shall not exceed 15,000,000 gallons (determined without regard to any qualified second generation biofuel production).

(D) Additional distillation excluded

The qualified ethanol fuel production of any producer for any taxable year shall not include any alcohol which is purchased by the producer and with respect to which such producer increases the proof of the alcohol by additional distillation.

(5) Adding of denaturants not treated as mixture

The adding of any denaturant to alcohol shall not be treated as the production of a mixture.