



TOXICS RELEASE INVENTORY

List of Toxic Chemicals within the Strychnine and Salts Category

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) requires certain facilities manufacturing, processing, or otherwise using listed toxic chemicals to report the annual quantity of such chemicals entering each environmental medium. Such facilities must also report pollution prevention and recycling data for such chemicals, pursuant to section 6607 of the Pollution Prevention Act, 42 U.S.C. 13106. EPCRA section 313 is also known as the Toxics Release Inventory (TRI).

CONTENTS

SECTION 1.0 INTRODUCTION.....	1
SECTION 2.0 CAS NUMBER LIST OF CHEMICALS WITHIN THE STRYCHNINE AND SALTS CATEGORY.....	2
SECTION 3.0 CAS NUMBER LIST OF MIXTURES WITHIN THE STRYCHNINE AND SALTS CATEGORY	13

LIST OF TABLES

Table 2-1: Listing by CAS Number of Each Individual Chemical within the Strychnine and Salts Category.....	2
Table 3-1: Mixtures Containing Strychnine or Strychnine Salts	13

DISCLAIMER

This guidance document is intended to assist industry with EPCRA section 313 reporting for the strychnine and salts category. In addition to providing an overview of aspects of the statutory and regulatory requirements of the EPCRA section 313 program, this document also provides recommendations to assist industry with EPCRA reporting. These recommendations do not supersede any statutory or regulatory requirements, are subject to change, and are not independently binding on either EPA or covered facilities. Additionally, if a conflict exists between guidance on this site and the statutory or regulatory requirements, the conflict must be resolved in favor of the statute or regulation.

Although EPA encourages industry to consider these recommendations, in reviewing this document, industry should be aware that these recommendations were developed to address common circumstances at typical facilities. The circumstances at a specific facility may significantly differ from those contemplated in the development of this document. Thus, individual facilities may find that the recommendations provided in this document are inapplicable to their processes or circumstances, and that alternative approaches or information are more accurate and/or more appropriate for meeting the statutory and regulatory requirements of EPCRA section 313. To that end, industry should use facility specific information and process knowledge, where available, to meet the requirements of EPCRA section 313. EPCRA section 313 also provides that, in the absence of such readily available data, a reporting facility may make reasonable estimates to meet those EPCRA section 313 requirements. Facilities are encouraged to contact the Agency with any additional or clarifying questions about the recommendations in this document, or if the facility believes that EPA has incorrectly characterized a particular process or recommendation.

Additional guidance documents, including industry specific and chemical specific guidance documents, are also available on TRI's GuideME website:

https://ofmpub.epa.gov/apex/guideme_ext/f?p=guideme:gd-list

SECTION 1.0 INTRODUCTION

On November 30, 1994 EPA added nearly 300 chemicals and chemical categories to the list of toxic chemicals subject to reporting under EPCRA section 313, 42 U.S.C 11001. These additions are described at 59 FR 61432, and were effective January 1, 1995 for reports due July 1, 1996. The strychnine and salts category was included in these additions. At the time of the addition, EPA indicated that the Agency would develop, as appropriate, interpretations and guidance that the Agency determines are necessary to facilitate accurate reporting for these categories. This document constitutes such guidance for the strychnine and salts category.

EPCRA section 313 requires threshold determinations for chemical categories to be based on the total of all chemicals in the category manufactured, processed, or otherwise used. For example, a facility that manufactures three members of a chemical category would count the total amount of all three chemicals manufactured towards the manufacturing threshold for that category. When filing reports for chemical categories, the releases are determined in the same manner as the thresholds. One report is filed for the category and all releases are reported on this form.

The strychnine and salts category is subject to the one percent *de minimis* concentration. Thus, mixtures that contain members of this category at concentrations equal to or in excess of one percent should be factored into threshold and release determinations.

Any compound that has a strychnine or a strychnine salt component is reportable. EPA is providing the following list of CAS numbers and chemical names to aid the regulated community in determining whether they need to report for the strychnine and salts category. However, this list is not exhaustive. If a facility is manufacturing, processing, or using a chemical that has a strychnine or a strychnine salt component, they must report to TRI, even if this chemical does not appear on the following list.

For general instruction regarding compliance with EPCRA section 313 requirements and form completion, please see the most recent version of the Toxic Chemical Release Inventory Reporting Forms and Instructions, available at: https://ofmpub.epa.gov/apex/guideme_ext/f?p=guideme:rfi-home.

SECTION 2.0 CAS NUMBER LIST OF CHEMICALS WITHIN THE STRYCHNINE AND SALTS CATEGORY

EPA is providing the following list of CAS numbers and chemical names to aid the regulated community in determining whether they need to report for the strychnine and salts category. However, this list is not exhaustive. If a facility is manufacturing, processing, or using a chemical that has a strychnine or a strychnine salt component, they must report to TRI, even if this chemical does not appear on the following list.

Table 2-1: Listing by CAS Number of Each Individual Chemical within the Strychnine and Salts Category

Collective Index Name	Other Name(s)	CAS Number
Strychnidin-10-one	Strychnine	57-24-9
Strychnidin-10-one, sulfate (2:1)	—	60-41-3
Strychnidin-10-one, mononitrate	—	66-32-0
Strychnidin-10-one,2-2'-difluoro-5,5'-dimethyl-6,6'- dinitro[1,1'-biphenyl]-3,3'-dicarboxylate (2:1)	—	337-37-1
Strychnidin-10-one, 5,5'-dichloro-2,2',6,6'-tetrafluoro[1,1'-biphenyl]-3,3'-dicarboxylate (2:1)	—	337-38-2
Strychnidin-10-one, mono(2'-fluoro-5'-methyl-6-nitro[1,1'-biphenyl]-2-carboxylate)	—	337-39-3
Strychnidin-10-one, 2,2'-difluoro-6,6'-dimethoxy[1,1'-biphenyl]-3,3'-dicarboxylate (1:1)	—	466-68-2
Strychnidin-10-one, phosphate (1:1)	Strychnine phosphate	509-42-2
Butyric acid, 2-amino-4-sulfo-, compound with strychnine (1:1)	—	1061-27-4
Strychnine, compound with tetrahydrogen hexacyanoferrate(4-)(1:1),monohydrate	—	1300-19-2
Strychnidin-10-one, compound with 1,2,3-propanetriol mono(dihydrogenphosphate) (2:1), dodecahydrate	Strychnine glycerophosphate hexahydrate	1301-26-4
Strychnidin-10-one, compound with 1,2,3-propanetriol mono(dihydrogenphosphate) (2:1)	Strychnine glycerophosphate	1323-31-5
Strychnidin-10-one, monohydrochloride	—	1421-86-9
Acetic acid, thiobis[(p-bromophenyl)-, compound with strychnine (1:2), (±)-	—	3113-18-6
Glutamic acid, N-benzoyl-2-(phenylmethyl)-, (+)-, compound with strychnine-10-one (1:2)	—	3183-17-3
Strychnine, mono(2-acetyl-1-benzyl-octahydro-4a-hydroxy-6-oxo-8a(1H)-isoquinolinecarboxylate)	—	3508-71-2
Acetic acid, (4-biphenylsufinyl)-, compound with strychnine (1:), (+)-	—	3708-20-1
Acetic acid, (2-biphenylsufinyl)-, compound with strychnine (1:1), (+)-	—	4109-15-3
Acetic acid, sulfanylbis[(p-bromophenyl)-, (+)-, compound with strychnine (1:2)	—	4850-67-3

Collective Index Name	Other Name(s)	CAS Number
2-Naphthaleneglycolic acid, 5,6,7,8-tetrahydro-, (S)-, compound with strychnine (1:1)	—	5803-81-6
Strychnine, mono(3,4-dichlorobenzenesulfonate)	—	5890-10-8
Strychnidin-10-one, 2-hydroxy-1,2,3-propanetricarboxylate	Strychnine, citrate	5936-16-3
Strychnine, p-(benzyloxy)benzenesulfonate	—	6056-14-0
Strychnidin-10-one, compound with arsenic acid (H ₃ AsO ₄) (1:1), dihydrate	—	6101-00-4
Strychnidin-10-one, sulfate (1:1), dihydrate	—	6101-01-5
Strychnidin-10-one, cis-1,2,2-trimethyl-1,3-cyclopentanedicarboxylate (1:1)	Strychnine camphorate	6101-02-6
Strychnidin-10-one, 2-hydroxy-1,2,3-propanetricarboxylate (1:1)	Strychnine, citrate (1:1)	6101-03-7
Strychnidin-10-one, monohydrochloride, dihydrate	Strychnine hydrochloride dihydrate	6101-04-8
Strychnidin-10-one, mono(2-hydroxypropanoate)	Strychnine lactate	6101-05-9
Strychnidin-10-one, mono(2-hydroxybenzoate)	Strychnine salicylate	6101-06-0
Strychnidin-10-one, monopentanoate	Strychnine valerate	6101-07-1
Strychnidin-10-one, phosphate (1:1), dihydrate	Strychnine phosphate dihydrate	6101-09-3
Strychnidin-10-one, mono(4-hydroxybenzenesulfonate)	Strychnine p-phenol sulfonate	6101-42-4
Strychnidin-10-one, monoformate	Strychnine formate	6158-11-8
Strychnidin-10-one, monophosphinate, dihydrate	Strychnine hypophosphite dihydrate	6158-12-9
Strychnidin-10-one, monohydrobromide, monohydrate	Strychnine hydrobromide monohydrate	6416-01-9
D-Gluconic acid, compound with strychnidin-10-one (1:1), pentahydrate	Strychnine gluconate pentahydrate	6416-06-4
Strychnidin-10-one, compound with chromic acid (H ₂ Cr ₂ O ₇) (1:1)	Strychnine dichromate	6424-33-5
Strychnidin-10-one, monoacetate	Strychnine acetate	6487-51-0
Strychnidin-10-one, monohydriodide, monohydrate	Strychnine hydriodide monohydrate	6533-70-6
Strychnine, hexafluoroantimonate(1-) (1:1)	—	7636-75-1
Strychnine, 2,2'-difluoro-5,5'-dimethyl-4,4'-dinitro-3,3'-biphenyldicarboxylate (2:1)	—	7649-63-0
Iron strychnine citrate	—	8052-88-8
Strychnidin-10-one, phosphonite (1:1)	—	10103-26-1
Strychnidin-10-one, [R-(R*,R*)]-2,3-dihydroxybutanedioate	Strychnine, tartrate	10289-23-3
Strychnidin-10-one, compound with arsenic acid (H ₃ AsO ₄) (1:1)	Strychnine arsenate	10476-82-1
Strychnidin-10-one, mono(dimethylarsinate)	Cytostyl; Strychnine cacodylate	10476-87-6
Strychnine, bis[N-salicylideneglycinato(2-)]ferrate(1-)	—	12113-04-1

Collective Index Name	Other Name(s)	CAS Number
Strychnidin-10-one, cyclohexylsulfamate	—	14504-57-5
Strychnidin-10-one, phosphonite	—	14654-02-5
Strychnine, D- α -acetamido-6-carboxy-2-oxo-2H-pyran-3-propionate (1:1)	—	15912-16-0
Strychnidin-10-one, monophosphinate	Strychnine hypophosphite	16036-87-6
Strychnidin-10-one, compound with 2,4,6-trinitrophenol (1:1)	Strychnine picrate	16639-66-0
Strychnidin-10-one, (OC-6-11)-hexakis(cyano-C)cobaltate(3-)(3:1)	Strychnine hexacyanocobaltate	17034-55-8
Strychnidin-10-one, compound with 2,3-dihydroxypropyl dihydrogen phosphate (1:1)	Strychnine glycerophosphate (1:1)	17140-57-7
Strychnidin-10-one, [R-(R*,R*)]-2,3-dihydroxybutanedioate (1:1)	Strychnine, tartrate (1:1)	17140-58-8
Strychnine, mono[[[1-(triethylsilyl)ethyl]thio]acetate]	—	18880-53-0
Strychnine, compound with methyl acetate (1:1)	—	20050-14-0
Strychnidin-10-one, compound with (OC-6-22)-tetrakis(acetato-O)(ethanedinitrile-N,N')vanadate(1-) (1:1)	—	20219-29-8
Strychnine, (2,4-di-tert-butyl-6-iodophenoxy)acetate, (-)-	—	20328-78-3
Strychnine, monopotassium tris(oxalato)chromate(3-) (1:2)	—	20436-53-7
Strychnine, compound with trans-mono-(2-hydroxycyclooctyl) phthalate (1:1), (-)-	—	21423-08-5
Strychnidin-10-one, sulfate	—	21800-13-5
Strychnine, (3-dibenzofuranylsulfinyl)acetate	—	22214-62-6
Strychnine, mono(6-hydroxy-2-naphthalenesulfonate)	—	22725-06-0
Strychnine, mono(6-hydroxy-2-naphthalenesulfonate) benzenesulfonate(ester)	—	22733-74-0
Strychnine, mono[(\pm)-(7-bromo-1-naphthyl)sulfinyl]acetate], (+)-	—	23181-49-9
Strychnine, compound with O,O,S-trimethyl phosphorodithioate (1:1)	—	23637-34-5
Strychnine, mono[(2-phenanthrylsulfinyl)acetate], (-)-	—	23660-44-8
Strychnine, thiosulfate (2:1)	—	24046-61-5
Rhodate (1-), [[N-(carboxymethyl)-N'-(2-hydroxyethyl)-N,N'-ethylenediglycinato](3-)]chloro-, hydrogen, compound with strychnine (1:1)	—	26061-47-2
Strychnidin-10-one, mono[(+)-3-amino-5-[(dimethylamino)carbonyl]-2,4,6-triiodobenzoate]	—	26190-91-0
Strychnidin-10-one, (OC-6-11)-diamminetetrakis(thiocyanato-N)chromate(1-)	Strychnine reineckate	27498-36-8
Strychnine, tris(oxalato)chromate(3-) (3:1), (+)-	—	28376-22-9
Strychnine, mono(cis-1,2,cis-1,3-o-meth-3-yl phthalate]	—	29362-83-2
Strychnidin-10-one, compound with (S)- α -methylbenzene acetate	—	33069-04-4

Collective Index Name	Other Name(s)	CAS Number
Strychnidin-10-one, mono[(S)- α -(formylamino)benzeneacetate]	N-Formyl-L-phenylglycine strychnine salt	36123-69-0
Strychnidin-10-one, mono[(1 α ,2 β ,3 α ,4 $\alpha\beta$,8 $\alpha\beta$)-(-)3-(acetyloxy)-1,2,3,4,4a,7,8,8a-octahydro-2-methoxy-7-oxo-1-naphthalenecarboxylate]	—	36547-79-2
Strychnidin-10-one, 3-amino-5-[(dimethylamino)carbonyl]-2,4,6-triiodobenzoate	—	37441-37-5
Strychnidin-10-one, stereoisomer of 2,2',2''-[methylidynetris(thio)]tris[propanoate] (2:1)	—	38004-58-9
Strychnidin-10-one, monobenzoate	Strychnine monobenzoate	39089-11-7
Strychnidin-10-one, mono(2-chlorobenzoate)	Strychnine mono (o-chlorobenzoate)	39089-12-8
Strychnidin-10-one, mono(3-chlorobenzoate)	Strychnine mono (m-chlorobenzoate)	39089-13-9
Strychnidin-10-one, mono(4-chlorobenzoate)	Strychnine mono (p-chlorobenzoate)	39089-14-0
Strychnidin-10-one, mono(2-bromobenzoate)	Strychnine mono (o-bromobenzoate)	39089-15-1
Strychnidin-10-one, mono(3-bromobenzoate)	Strychnine m-bromobenzoate	39089-16-2
Strychnidin-10-one, mono(4-bromobenzoate)	Strychnine mono (p-bromobenzoate)	39089-17-3
Strychnidin-10-one, compound with β -D-galactofuranose 1-(dihydrogenphosphate) (2:1)	—	39698-25-4
Strychnidin-10-one, (\pm)-9,10-dihydro-9,10-ethenoanthracene-1,5-dicarboxylate (1:1)	—	40443-27-4
Chromate(1-), bis(pyridine)tetrakis(thiocyanato-N)-, hydrogen, compound with strychnidin-10-one (1:1)	—	40701-06-2
Strychnidin-10-one, monothiocyanate	—	41239-66-1
Strychnidin-10-one, compound with 4,4'-(3H-2,1-benzoxathiol-3-ylidene)bis[2-bromo-3-methyl-6-(1-methylethyl)phenol] S,S-dioxide	—	41528-82-9
Strychnidin-10-one, mono[(+)-(3-dibenzofuranylsulfinyl)acetate]	—	42138-26-1
Strychnidin-10-one, mono[(-)-(3-dibenzofuranylsulfinyl)acetate]	—	42138-27-2
Strychnidin-10-one, mono[(+)-(4-dibenzofuranylsulfinyl)acetate]	—	42138-30-7
D-Gluconic acid, compound with strychnidin-10-one (1:1)	—	49719-63-3
Strychnidin-10-one, sulfate (1:1)	—	49719-64-4
Strychnidin-10-one, mono(3,4-dimethylbenzenesulfonate)	—	50727-49-6
Strychnidin-10-one, mono(2,5-dimethylbenzenesulfonate)	—	50727-50-9
Strychnidin-10-one, mono(4-hydroxy-2,3-dimethylbenzenesulfonate)	—	50727-51-0

Collective Index Name	Other Name(s)	CAS Number
Strychnidin-10-one, mono(2-hydroxy-4,6-dimethylbenzenesulfonate)	—	50727-52-1
Strychnidin-10-one, mono[2,6-dimethyl-3-[(phenylsulfonyl)oxy]benzenesulfonate]	—	50727-53-2
Strychnidin-10-one, mono[4-[[2,4-dimethylphenyl)sulfonyl]oxy]benzenesulfonate]	—	50727-54-3
Strychnidin-10-one, compound with 4-sulfophenyl 3,4-dimethylbenzenesulfonate (1:1)	—	50727-55-4
Strychnidin-10-one, mono[3,5-dimethyl-4-[[4-methylphenyl)sulfonyl]oxy]benzenesulfonate]	—	50727-56-5
Strychnidin-10-one, mono[(R)-(2-dibenzofuranylsulfinyl)acetate]	—	52340-19-9
Strychnidin-10-one, monohydrobromide	—	52714-88-2
Strychnidin-10-one, compound with 2,4,6-trinitrophenol	Strychnine picrate	52714-96-2
Strychnidin-10-one, monohydriodide	Strychnine hydriodide	52748-69-3
Strychnidin-10-one, mono[bis(N,N-dimethylbenzenamine)tetrakis(thiocyanato-N)chromate(1-)]	—	53021-66-2
Strychnidin-10-one, sulfate (2:1), compound with (OC-6-11)-tris(1,10-phenanthroline-N1,N10)zinc(2+) sulfate (1:1:1)	—	54387-02-9
Strychnidin-10-one, mono[(S)-2-hydroxytetracosanoate]	L-Cerebronic acid, strychnine salt	54563-88-1
Strychnidin-10-one, mono[(S)- α -methylbenzeneacetate]	—	54667-63-9
Strychnidin-10-one, compound with molybdenum hydroxide nitrate oxide	Strychnine molybdonitric acid	56797-39-8
Strychnidin-10-one, sulfate (1:1), pentahydrate	—	58299-26-6
Strychnidin-10-one, monohydrobromide, dihydrate	—	58299-27-7
Strychnidin-10-one, compound with 2,4-dihydro-5-methyl-4-nitro-2-(4-nitrophenyl)-3H-pyrazol-3-one (1:1)	—	59863-84-2
Strychnidin-10-one, sulfate (2:1), pentahydrate	Strychnine sulfate pentahydrate	60491-10-3
Strychnidin-10-one, selenate (2:1), pentahydrate	—	60498-30-8
Strychnidin-10-one, mono(trifluoroacetate)	Strychnine trifluoroacetate	60723-49-1
Osmate(2-), hexabromo-, (OC-6-11)-, dihydrogen, compound with strychnidin-10-one (1:2)	Strychnine, hexabromoosmate(IV)	62459-34-1
Strychnidin-10-one, compound with trans-(\pm)-1,2-cyclopentanediybis(hydrogen sulfate) (2:1)	—	63261-47-2
Strychnidin-10-one, mono[(R)-3-formyl-2,2-dimethyl-4-thiazolidinecarboxylate]	—	63284-32-2
Strychnidin-10-one, mono[(\pm)-3-formyl-2,2-dimethyl-4-thiazolidinecarboxylate]	—	63284-33-3
Strychnidin-10-one, (-)-9, 10-dihydro-9,10-ethenoanthracene-1,5-dicarboxylate	—	64666-35-9
Strychnidin-10-one, (R)-3,3'-dimethyl[1,1'-binaphthalene]-2,2'-diylbis(dihydrogen phosphate)	—	65337-82-8

Collective Index Name	Other Name(s)	CAS Number
Strychnidin-10-one, compound with (R)-3,3'-dimethyl[1,1'-binaphthalene]-2,2'diol	—	65355-10-4
Chromate(1-), diamminetetakis(thiocyanato-N)-, (OC-6-11)-, hydrogen, compound with strychnidin-10-one (1:1)	—	66063-57-8
Strychnidin-10-one, hexaiodotellurate(2-) (2:1)	—	66083-89-4
Strychnidin-10-one, mono[(OC-6-11)-bis (benzenamine) tetrakis(thiocyanato-N)chromate(1-)]	—	66083-91-8
Strychnidin-10-one, mono[bis(4-methylbenzenamine)tetrakis(thiocyanato-N)chromate(1-)]	Benzenamine, 4-methyl-, chromium complex compound with strychnine	66083-92-9
Tellurate(2-), hexachloro-, dihydrogen, compound with strychnidin-10-one (1:1)	Strychnidin-10-one, hexachlorotellurate(2-) (1:1)	67028-97-1
Strychnidin-10-one, compound with (S)-4-hydroxy-2,6-dimethyldinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin 4-oxide (1:1)	—	67267-34-9
Strychnidin-10-one, mono[(S)-1,3-dihydro- α -[(2-methoxy-4-nitrophenyl)methyl]-1,3-dioxo-2H-isoindole-2-acetate]	—	70266-85-2
Strychnidin-10-one, mono[(R)-1,3-dihydro- α -[(2-methoxy-4-nitrophenyl)methyl]-1,3-dioxo-2H-isoindole-2-acetate]	—	70266-86-3
Strychnidin-10-one, conjugate monoacid	Strychnine conjugate acid	73732-52-2
L-Tyrosine, N-acetyl- α -(hydroxymethyl)-3-methoxy-O-methyl-, compound with strychnidin-10-one (1:1)	—	73800-74-5
D-Tyrosine, N-acetyl- α -(hydroxymethyl)-3-methoxy-O-methyl-, compound with strychnidin-10-one (1:1)	—	73800-76-7
Strychnidin-10-one, phosphinate	—	74577-96-1
Strychnidin-10-one, compound with ethyl 2-[3,5-dibromo-4-hydroxyphenyl)(3,5-dibromo-4-oxo-2,5-cyclohexadien-1-ylidene)methyl]benzoate (1:1)	—	76201-36-0
Strychnidin-10-one, mono[tetraphenylborate(1-)]	—	76445-05-1
Strychnidin-10-one, mononitrite	Strychnine nitrite	78686-40-5
Strychnidin-10-one, mono[(13S-trans)-5,8,13,13a-tetrahydro-9,10-dimethoxy-8-oxo-6H-benzo[g]-1,3-benzodioxolo[5,6-a]quinolizine-13-carboxylate	—	79055-72-4
Strychnidin-10-one, mono[(6S-cis)-6,6a,11,14-tetrahydro-8,9-dimethoxy-14-oxo-12H-benzo[a]-1,3-benzodioxolo[4,5-g]quinolizine-6-carboxylate]	—	79082-07-8
Strychnidin-10-one, [(2 α ,3 α ,4 α)-(+)-4-(carboxymethyl)tetrahydro-5-oxo-2,3-furandicarboxylate] (1:1)	—	79726-19-5
Strychnidin-10-one, (+)-[(4-bromophenyl)sulfinyl]acetate (1:1)	—	80214-20-6
Strychnidin-10-one, compound with methylarsonate (1:1)	Strychnine methylarsonate	80879-64-7
Strychnidin-10-one, mono[(R)-[(4-bromophenyl)methyl]sulfinyl]acetate]	—	81431-41-6
Strychnidin-10-one, (R)-methylbutanedioate	—	83450-60-6

Collective Index Name	Other Name(s)	CAS Number
Strychnidin-10-one, mono[[1R-(1 α ,2 β ,3 α)]-3- methyl-2-(nitromethyl)-5-oxocyclopentaneacetate]	—	86087-04-9
Strychnidin-10-one, mono[(-)-phenyl(triethylsilyl)methyl,1,2-benzenedicarboxylate]	—	86393-05-7
Strychnidin-10-one, mono[(+)- phenyl(triethylsilyl)methyl,1,2-benzenedicarboxylate]	—	86393-07-9
Strychnidin-10-one, mono[(-)-[[2-bromophenyl)methyl]sulfinyl]acetate]	—	87852-56-0
Strychnidin-10-one, mono[(+)-[(2-bromophenyl)sulfinyl]acetate]	—	87852-72-0
Strychnidin-10-one, compound with 5-nitro- 2,4,6(1H,3H,5H)-pyrimidinetrione	—	88154-35-2
L-Alanine, N-benzoyl-, compound with strychnidin-10-one (1:1)	—	92818-46-7
L-Proline, 5-oxo-, compound with strychnidin-10-one (1:1)	—	93940-83-1
Strychnidin-10-one, mono[(T-4)-tetraiodobismuthate(1-)]	—	96322-46-2
Strychnidin-10-one, mono[[R-(R*,S*)]- α -(1,3- benzodioxol-5-hydroxymethyl)-1,3-dihydro-1,3-dioxo-2H- isoindole-2-acetate]	—	96561-37-4
Strychnidin-10-one, monok[[S-(R*,R*)]- α -(1,3- benzodioxol-5-ylhydroxymethyl)-1,3-dihydro-1,3-dioxo-2H- isoindole-2-acetate]	—	96561-42-1
Strychnidin-10-one, (S)- α -(acetylamino)-2-dibenzofuranpropanoate	—	96680-59-0
Strychnidin-10-one, mono[(S)-[[3-bromophenyl)methyl]sulfinyl]acetate]	—	98392-15-5
L-Alanine, N-benzoyl-, compound with strychnidin-10-one (1:1), dihydrate	—	98748-11-9
Strychnidin-10-one, mono[(OC-6-21-A)-[[N,N'-1,2-ethanediylbis[N-(2-carboxyethyl)- β -alaninato]](4)-N,N',O,O',ON,ON']rhodate(1-)]	—	99031-66-0
Strychnine, [(ethylenedinitrilo)tetraacetato]nickelate(II)	—	99771-32-1
Strychnidin-10-one, arsenite (1:1)	—	100258-44-4
Strychnidin-10-one, compound with 4,4'-(3H-2,1- benzoxathiol-3-ylidene)bis[2,6-dibromo-3- methylphenol]S,S-dioxide (1:1)	—	101686-74-2
Strychnidin-10-one, compound with 4,4'-(3H-2,1- benzoxathiol-3-ylidene)bis[2,6-dibromo-3-methylpheno] S,S-dioxide (2:1)	—	101912-89-4
Strychnidin-10-one, compound with 4,4'-(3H-2,1- benzoxathiol-3-ylidene)bis[2,6-dibromo-3- methylphenol]S,S-dioxide (3:1)	—	101912-97-4
Propionic acid, 2-mercapto-, dimethyldithiocarbamate, compound with strychnine	—	103070-73-1
Strychnidin-10-one, compound with 4,4'-(3H-2,1- benzoxathiol-3-ylidene)bis[2-bromo-3-methyl-6-(1- methylethyl)phenol S,S-dioxide (1:1)	Bromothymol blue compound with strychnine (1:1)	103792-92-3
Strychnine, chloro[hydrogen (ethylenedinitrilo) tetraacetato]rhodate (III)	—	105022-71-7

Collective Index Name	Other Name(s)	CAS Number
Strychnine, [(ethylenedinitrilo)tetraacetato]vanadate(III)	—	105022-72-8
2-Naphthaleneglycolic acid, 5,6,7,8-tetrahydro-, compound with strychnine	—	105403-46-1
Acetic acid, [(1-bromo-2-naphthyl)sulfinyl]-, compound with strychnine	—	105521-40-2
Acetic acid, (2-biphenylsulfanyl)-, compound with strychnine	—	105841-43-8
Acetic acid, (4-biphenylsulfanyl)-, compound with strychnine	—	105841-44-9
Acetic acid, (fluoren-2-ylsulfanyl)-, compound with strychnine	—	105841-70-1
Benzoic acid, 4-[(5,6-dimethoxy-3-oxo-4-phthalanyl)oxy]-3-iodo, compound with strychnine	—	105948-45-6
D-ribo-Hexonic acid, 3-deoxy-, strychnine salt	—	106216-71-1
Strychnine, [(ethylenedinitrilo)tetraacetato]rhodate(III)	—	106234-23-5
1-Naphthoic acid, 8-(o-tert-butylphenyl)-, compound with strychnine	—	106385-26-6
4-Biphenylcarboxylic acid, 2'-tert-butyl-2-nitro-, compound with strychnine	—	106424-31-1
2-Biphenylcarboxylic acid, 2'-tert-butyl-, compound with strychnine	—	106424-34-4
3-Biphenylcarboxylic acid, 2',6-di-tert-butyl-, compound with strychnine	—	106424-52-6
1-Naphthaleneacetic acid, 1 α ,2,3,4,4 α ,5,6,7,8,8 α - decahydro-6 β -hydroxy-5,5,8 α -trimethyl-2-oxo-, methyl ester, hydrogen phthalate, compound with strychnine	—	107354-69-8
Cyclopropanecarboxylic acid, 3-(2-cyanopropenyl)-2,2-dimethyl-, compound with strychnine (1:1)	—	107559-52-4
Acetic acid, thiobis[(p-bromophenyl)-], compound with strychnine	—	107601-04-7
Acetic acid, sulfanylbis[(p-bromophenyl)-], compound with strychnine	—	107601-05-8
Acetic acid, thiobis[phenyl-], compound with strychnine (1:2)	—	107601-06-9
Acetic acid, sulfanylbis[phenyl-], compound with strychnine	—	107601-07-0
3-Pyrazoline-4-sulfonic acid, 2,3-dimethyl-5-oxo-1-phenyl-, compound with strychnine	—	107989-62-8
Strychnine, hexachloroosmate(IV)	—	108171-69-3
Strychnine, [(ethylenedinitrilo)tetraacetato]cuprate(II)	—	108374-34-1
Strychnine, hexacyanochromate(III)	—	108486-13-1
Strychnidin-10-one, mono[(+)-1,3-dihydro- β -1-naphthalenyl-1,3-dioxo-2H-isoindole-2-butanoate]	—	108827-18-5
Strychnine, hexathiocyanatochromate(III)	—	108987-70-8
Strychnidin-10-one, compound with hydrogen sulfide (H ₂ S ₆) (2:1)	—	111536-63-1
Strychnidin-10-one, (+)-7,7'-dimethoxy[4,4'-bi-1,3-benzodioxole]-5,5'-dicarboxylate	—	111897-22-4

Collective Index Name	Other Name(s)	CAS Number
Strychnidin-10-one, (-)-7,7'-dimethoxy[4,4'-bi-1,3-benzodioxole]-5,5'-dicarboxylate	—	111897-24-6
Acetic acid, trichloro-, strychnine salt	—	114793-33-8
Strychnidin-10-one, mono[(S)-5-[(4-ethyl-2,5-dihydro-3-methyl-5-oxo-1H-pyrrol-2-yl)methyl]-4-methyl-1H-pyrrole-2-carboxylate]	—	115976-57-3
Strychnidin-10-one, mono[(R)-5-[(4-ethyl-2,5-dihydro-3-methyl-5-oxo-1H-pyrrol-2-yl)methyl]-4-methyl-1H-pyrrole-2-carboxylate]	—	115976-60-8
Strychnidin-10-one, [S-(R*,R*)]-2,3-dihydroxybutanedioate (1:1), trihydrate	Strychnine (S,S)-tartrate trihydrate	116708-31-7
Strychnidin-10-one, [R-(R*,R*)]-2,3-dihydroxybutanedioate (2:1), hexahydrate	Strychnine (R,R)-bitartrate hexahydrate	116728-44-0
L-Ascorbic acid, compound with strychnidin-10-one (1:1)	—	117552-81-5
3-Pyridinol, 2,6-dinitro-, compound with strychnine, nitrate	—	119569-79-8
Hexanedioic acid, 3,4-dihydroxy-, compound with strychnine (1:2)	—	120023-42-9
Xylopyranose, 1-phosphate, compound with strychnine (1:1), β-D-	—	120334-15-8
2,12-Dioxabicyclo[11.2.2]heptadeca-13,15,16-triene-14-carboxylic acid, compound with strychnine	—	120579-55-7
Caronic acid, compound with strychnine (1:2)	—	120858-00-6
2,2'-Biphenyldisulfonic acid, 4,4',6,6'-tetramethyl-, compound with strychnine (1:2)	—	120883-94-5
Acetic acid, (4-methoxy-1-naphthylsulfinyl)-, compound with strychnine	—	121499-75-0
2-Thiopheneglycolic acid, compound with strychnine	—	121526-88-3
Hydratropic acid, strychnine salt	—	121527-65-9
Caronic acid, compound with strychnine (1:1)	—	121543-62-2
Propiolic acid, compound with strychnine	—	121543-86-0
α-D-Xylopyranose, 1-phosphate, salt with strychnine (1:2)	—	121707-90-2
β-D-Xylopyranose, 1-phosphate, salt with strychnine	—	122147-77-7
α-D-Xylopyranose, 1-phosphate, salt with strychnine	—	122147-78-8
[1,1'-Binaphthalene]-2,2'-disulfonic acid, compound with strychnine (1:2)	—	122361-60-8
Strychnidin-10-one, mono [[OC-6-33-A-[R-(R*,R*)]]-[ethanedioato(2-)-O,O']][[N,N'-1,2-ethanediybis(glycinato)](2-)-N,N',O,O']chromate(1-)	Glycine, N,N'-1,2-ethanediybis-, chromium complex, compound with strychnine	122564-98-1
Strychnidin-10-one, mono[OC-6-13-C-[R-(R*,R*)]]-[[N,N'-1,2-ethanediybis(glycinato)](2-)-N,N',O,O'][[propanedioateo(2-)-O,O']chromate(1)]	Glycine, N,N'-1,2-ethanediybis-, chromium complex, compound with strychnine; Propanedioic acid, chromium complex, compound with strychnine	122619-87-8

Collective Index Name	Other Name(s)	CAS Number
Strychnidin-10-one, compound with [S-(R*,S*)]-diethyl [(hydroxymethoxyphosphinothioyl)thio]butanedioate (1:1)	—	141264-02-0
Strychnidin-10-one, compound with [S-(R*,R*)]-diethyl [(hydroxymethoxyphosphinothioyl)thio]butanedioate (1:1)	—	141264-04-2
Strychnidin-10-one, mono[(+)-2-[[4-methylphenyl)methyl]sulfinyl]benzoate]	—	147282-84-6
Strychnidin-10-one, compound with 4-[(2-hydroxy-1-naphthalenyl)azo]-1-naphthalenesulfonic acid monosodium salt	Acid Red 88-strychnine compound	148559-96-0
Strychnidin-10-one, compound with 7-hydroxy-8-(1-naphthalenylazo)-1,3-naphthalenedisulfonic acid disodium salt	Acid Red 44-strychnine compound	148559-97-1
Strychnidin-10-one, compound with 7-hydroxy-8-[(4-sulfo-1-naphthalenyl)azo]-1,3,6-naphthalenetrisulfonic acid trisodium salt	Acid Red 18-strychnine compound	148559-98-2
Strychnidin-10-one, compound with 7-hydroxy-8-[(4-sulfo-1-naphthalenyl)azo]-1,3,6-naphthalenetrisulfonic acid tetrasodium salt	Acid Red 41-strychnine compound	148559-99-3
Strychnidin-10-one, mono[(OC-6-21-C)-[2-[bis(carboxymethyl)amino]-1-[[bis(carboxymethyl)amino]methyl]ethyl pentanoato(4-)] cobaltate(1-)], hexahydrate	—	158646-92-5

SECTION 3.0 CAS NUMBER LIST OF MIXTURES WITHIN THE STRYCHNINE AND SALTS CATEGORY

EPA is providing the following list of CAS numbers and chemical names for mixtures that contain a strychnine or a strychnine salt component. This list will aid the regulated community in determining whether they need to report for the strychnine and salts category. However, this list is not exhaustive. If a facility is manufacturing, processing, or using a mixture that contains a strychnine or a strychnine salt component, they must report to TRI, even if this chemical does not appear on the following list. Threshold calculations for the strychnine and salts category should account only for the percentage of the strychnine or the strychnine salt component contained in the mixture.

Table 3-1: Mixtures Containing Strychnine or Strychnine Salts

Mixture Name	Strychnine Component	Mixture CAS Number
Strychnidin-10-one, 2-hydroxy-1,2,3-propanetricarboxylate, mixture with (8 α ,9R)-6'-methoxycinchonan-9-ol iron salt	Strychnine, citrate 5936-16-3	8062-13-3
Yohimban-16-carboxylic acid, 17-hydroxy-, methyl ester, (16 α ,17 α)-, mixture with [2R-[2R*(4R*,8R*)]-3,4- dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1- benzopyran-6-yl acetate,(1 α ,5 α ,17 α)-17-hydroxy-1- methylandrostan-3-one, magnesium di-3-pyridinecarboxylate and strychnidin-10-one mononitrate	Strychnidin-10-one, mononitrate 66-32-0	8067-17-2
L-Ascorbic acid, mixture with 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride, 1,2,3-propanetriolmono(dihydrogen phosphate) sodium salt, riboflavin and strychnidin-10-one phosphate (1:1)	Strychnine phosphate 509-42-2	37333-45-2
Strychnidin-10-one, mononitrate, mixture with 2-aminoethylcarbamimidothioate dihydrobromide and 5-methoxy-1H-indole-3-ethanaminemonohydrochloride	Strychnidin-10-one, mononitrate 66-32-0	51484-87-8
L-Ascorbic acid, mixture with 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride monohydrochloride and strychnidin-10-one mononitrate	Strychnidin-10-one, mononitrate 66-32-0	52539-51-2
Strychnidin-10-one, mixture with 3,7-dihydro-1,3,7-trimethyl-1H-purine-2,6-dione, (1 α ,2 α ,3 β ,6 β ,6 α ,8 α S*,8 β ,9R*)-hexahydro-2a-hydroxy-9-(1-hydroxy-1-methylethyl)-8b-methyl-3,6-methano-8H-1,5,7-trioxacyclopenta[ij] cycloprop[a]azulene-4,8(3H)-dione, (1 α ,2 α ,3 β ,6 β ,6 α ,8 α S*,8 β ,9R*)-hexahydro-2a-hydroxy-8b-methyl-9-(1-methylethenyl)-3,6-methano-8H-1,5,7-trioxacyclopenta[ij]-cycloprop[a]azulene-4,8(3H)-dione and 6,7,8,9-tetrahydro-5H-tetrazolo[1,5-a]azepine	Strychnine 57-24-9	55659-55-7
Strychnidin-10-one, mononitrate, mixture with 3,7-dihydro-1,3,7-trimethyl-1Hpurine-2,7-dione, (1 α ,2 α ,3 β ,6 β ,6 α ,8 α S*,8 β ,9R*)-mononitrate-hexahydro-2a-hydroxy-9-(1-hydroxy-1-methylethyl)-8b-methyl-3,6-methano-8H-1,5,7-trioxacyclopenta[ij]-cycloprop[a]azulene-4,8(3H)-dione, [1 α R-(1 α ,2 α ,3 β ,6 β ,6 α ,8 α S*,8 β ,9R*)]-hexahydro-2a-hydroxy-8b-methyl-9-(1-methylethenyl)-3,6-methano-8H-1,5,7-trioxacyclopenta-[ij]cycloprop[a]azulene-4,8(3H)-dione, sodium benzoate and 6,7,8,9-tetrahydro-5H-tetrazolo[1,5]azepine	Strychnidin-10-one, 66-32-0	60181-70-6
Strychnidin-10-one, monohydrochloride, mixture with sodium hydrogenmethylarsonate	Strychnidin-10-one, monohydrochloride 1421-86-9	110541-80-5

Mixture Name	Strychnine Component	Mixture CAS Number
Yohimban-16-carboxylic acid, 17-hydroxy-, methyl ester, monohydrochloride, (16 α ,17 α)-, mixture with strychnidin- 10-one mononitrate	Strychnidin-10-one, 66-32-0	132271-09-1
Strychnidin-10-one, 2-hydroxy-1,2,3-propanetricarboxylate, mixture with (8 α ,9R)-6'-methoxycinchonan-9-ol iron salt	Strychnine, citrate 5936-16-3	8062-13-3
Yohimban-16-carboxylic acid, 17-hydroxy-, methyl ester, (16 α ,17 α)-, mixture with [2R-[2R*(4R*,8R*)]]-3,4- dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1- benzopyran-6-yl acetate,(1 α ,5 α ,17 α)-17-hydroxy-1- methylandrostan-3-one, magnesium di-3-pyridinecarboxylate and strychnidin-10-one mononitrate	Strychnidin-10-one, mononitrate 66-32-0	8067-17-2
L-Ascorbic acid, mixture with 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride, 1,2,3-propanetriolmono(dihydrogen phosphate) sodium salt, riboflavin and strychnidin-10-one phosphate (1:1)	Strychnine phosphate 509-42-2	37333-45-2
Strychnidin-10-one, mononitrate, mixture with 2-aminoethylcarbamidithioate dihydrobromide and 5-methoxy-1H-indole-3-ethanaminemonohydrochloride	Strychnidin-10-one, mononitrate 66-32-0	51484-87-8
L-Ascorbic acid, mixture with 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride monohydrochloride and strychnidin-10-one mononitrate	Strychnidin-10-one, mononitrate 66-32-0	52539-51-2
Strychnidin-10-one, mixture with 3,7-dihydro-1,3,7-trimethyl-1H-purine-2,6-dione, (1 α ,2 α ,3 β ,6 β ,6 α ,8 α S*,8 β ,9R*)-hexahydro-2a-hydroxy-9-(1-hydroxy-1-methylethyl)-8b-methyl-3,6-methano-8H-1,5,7-trioxacyclopenta[ij] cycloprop[a]azulene-4,8(3H)-dione, (1 α ,2 α ,3 β ,6 β ,6 α ,8 α S*,8 β ,9R*)-hexahydro-2a-hydroxy-8b-methyl-9-(1- methylethenyl)-3,6-methano-8H-1,5,7-trioxacyclopenta[ij]-cycloprop[a]azulene-4,8(3H)-dione and 6,7,8,9-tetrahydro-5H-tetrazolo[1,5-a]azepine	Strychnine 57-24-9	55659-55-7
Strychnidin-10-one, mononitrate, mixture with 3,7-dihydro-1,3,7-trimethyl-1Hpurine-2,7-dione, (1 α ,2 α ,3 β ,6 β ,6 α ,8 α S*,8 β ,9R*)-mononitrate-hexahydro-2a-hydroxy-9-(1-hydroxy-1-methylethyl)-8b-methyl-3,6-methano-8H-1,5,7-trioxacyclopenta[ij]-cycloprop[a]azulene-4,8(3H)-dione, [1 α R-(1 α ,2 α ,3 β ,6 β ,6 α ,8 α S*,8 β ,9R*)]-hexahydro-2a-hydroxy-8b-methyl-9-(1-methylethenyl)-3,6-methano-8H-1,5,7-trioxacyclopenta-[ij]cycloprop[a]azulene-4,8(3H)-dione, sodium benzoate and 6,7,8,9-tetrahydro-5H-tetrazolo[1,5]azepine	Strychnidin-10-one, 66-32-0	60181-70-6
Strychnidin-10-one, monohydrochloride, mixture with sodium hydrogenmethylarsonate	Strychnidin-10-one, monohydrochloride 1421-86-9	110541-80-5
Yohimban-16-carboxylic acid, 17-hydroxy-, methyl ester, monohydrochloride, (16 α ,17 α)-, mixture with strychnidin- 10-one mononitrate	Strychnidin-10-one, 66-32-0	132271-09-1
Strychnidin-10-one, 2-hydroxy-1,2,3-propanetricarboxylate, mixture with (8 α ,9R)-6'-methoxycinchonan-9-ol iron salt	Strychnine, citrate 5936-16-3	8062-13-3
Yohimban-16-carboxylic acid, 17-hydroxy-, methyl ester, (16 α ,17 α)-, mixture with [2R-[2R*(4R*,8R*)]]-3,4- dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1- benzopyran-6-yl acetate,(1 α ,5 α ,17 α)-17-hydroxy-1- methylandrostan-3-one, magnesium di-3-pyridinecarboxylate and strychnidin-10-one mononitrate	Strychnidin-10-one, mononitrate 66-32-0	8067-17-2

Mixture Name	Strychnine Component	Mixture CAS Number
L-Ascorbic acid, mixture with 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride, 1,2,3-propanetriolmono(dihydrogen phosphate) sodium salt, riboflavin and strychnidin-10-one phosphate (1:1)	Strychnine phosphate 509-42-2	37333-45-2
Strychnidin-10-one, mononitrate, mixture with 2-aminoethylcarbamimidothioate dihydrobromide and 5-methoxy-1H-indole-3-ethanaminemohydrochloride	Strychnidin-10-one, mononitrate 66-32-0	51484-87-8
L-Ascorbic acid, mixture with 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride monohydrochloride and strychnidin-10-one mononitrate	Strychnidin-10-one, mononitrate 66-32-0	52539-51-2
Strychnidin-10-one, mixture with 3,7-dihydro-1,3,7-trimethyl-1H-purine-2,6-dione, (1 α ,2 α β ,3 β ,6 β ,6 α β ,8 α S*,8 β β ,9R*)-hexahydro-2a-hydroxy-9-(1-hydroxy-1-methylethyl)-8b-methyl-3,6-methano-8H-1,5,7-trioxacyclopenta[ij] cycloprop[a]azulene-4,8(3H)-dione, (1 α ,2 α β ,3 β ,6 β ,6 α β ,8 α S*,8 β β ,9R*)-hexahydro-2a-hydroxy-8b-methyl-9-(1-methylethenyl)-3,6-methano-8H-1,5,7-trioxacyclopenta[ij]-cycloprop[a]azulene-4,8(3H)-dione and 6,7,8,9-tetrahydro-5H-tetrazolo[1,5-a]azepine	Strychnine 57-24-9	55659-55-7
Strychnidin-10-one, mononitrate, mixture with 3,7-dihydro-1,3,7-trimethyl-1Hpurine-2,7-dione, (1 α ,2 α β ,3 β ,6 β ,6 α β ,8 α S*,8 β β ,9R*)-mononitrate-hexahydro-2a-hydroxy-9-(1-hydroxy-1-methylethyl)-8b-methyl-3,6-methano-8H-1,5,7-trioxacyclopenta[ij]-cycloprop[a]azulene-4,8(3H)-dione, [1 α R-(1 α ,2 α β ,3 β ,6 β ,6 α β ,8 α S*,8 β β ,9R*)]-hexahydro-2a-hydroxy-8b-methyl-9-(1-methylethenyl)-3,6-methano-8H-1,5,7-trioxacyclopenta-[ij]cycloprop[a]azulene-4,8(3H)-dione, sodium benzoate and 6,7,8,9-tetrahydro-5H-tetrazolo[1,5]azepine	Strychnidin-10-one, 66-32-0	60181-70-6