SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-O-43694
Product Name	Salvinorin A
CAS No.	83729-01-5
Category	Metabolite
Synonyms	2H-Naphtho[2,1-c]pyran-7-carboxylic acid, 9-(acetyloxy)-2-(3-furanyl)dodecahydro-6a,10b-dimethyl-4,10-dioxo-, methyl ester, [2S; (2α,4aα,6aβ,7β,9β,10aα,10bβ)]- (ZCI); (-)-Salvinorin A; Divinorin A; Salvinorin; Salvinorin A
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Acute toxicity (Category 4)

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s)

Code	Statement
H302	Harmful if swallowed.

Precautionary Statement(s)

Code	Statement
P264	Wash hands thoroughly after handling.
P270	Not available
P301+P317	Not available
P330	Not available
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Salvinorin A
CAS Number : 83729-01-5
Molecular Formula : C23H28O8
Molecular Weight : 432.47
Parent Chemical : Salvinorin
Synonyms : 2H-Naphtho[2,1-c]pyran-7-carboxylic acid,
9-(acetyloxy)-2-(3-furanyl)dodecahydro-6a,10b-dimethyl-4,10-dioxo-, methyl ester, [2S;
(2α,4aα,6aβ,7β,9β,10aα,10bβ)]- (ZCI); (-)-Salvinorin A; Divinorin A; Salvinorin; Salvinorin A
Concentration : Not available

SECTION 4: First aid measures

Not available

SECTION 5: Firefighting measures

Not available

SECTION 6: Accidental release measures

Not available

SECTION-7: Handling and storage

Not available

SECTION 8: Exposure controls / personal protection

Not available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

Not available

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: IDENTIFICATION AND USE: Salvinorin A forms colorless crystals or white powder. It is a traditional medicine used by the Mazatec people of Oaxaca, Mexico. In traditional medicine, the leaves are used for divination and for treatment of anemia and excretory functions. Currently, neither Salvia divinorum nor any of its constituents, including salvinorin A, are controlled under the federal Controlled Substances Act (CSA). Neither Salvia divinorum nor its active constituent salvinorin A has an approved medical use in the U.S. However, both the plant and its preparations are becoming increasingly popular among non-traditional users. HUMAN STUDIES: Salvinorin A is a potent and selective kappa opioid receptor agonist. The use of the parent plant Salvia divinorum may cause diuresis, nausea, and dysphoria. Smoking the extract was described as the preferred form of administration. Subjective effects were described as intense but short-lived, appearing in less than 1 min and lasting 15 min or less. They included psychedelic-like changes in visual perception, mood and somatic sensations, and importantly, a highly modified perception of external reality and the self, leading to a decreased ability to interact with oneself or with one's surroundings. ANIMAL STUDIES: Rats were anesthetized and administered salvinorin A at 1600 ug/kg or vehicle. Recordings were made of galvanic skin response, electrocardiogram, temperature, and pulse pressure for 100 minutes. No effects were seen on cardiac conduction, temperature, or galvanic skin response. A nonsignificant rise was seen in pulse pressure. In rats, salvinorin A (80-640 ug/kg) did not affect short-term memory, but it impaired spatial long-term memory. Episodic and aversive memories were impaired by salvinorin A (160-640 ug/kg). Overall, animal studies of salvinorin A show a rapid onset of action and short distribution and elimination half-lives as well as a lack of evidence of short- or long-term toxicity. /HUMAN EXPOSURE STUDIES/ This study examined the overall psychological effects of inebriation facilitated by the naturally-occurring plant hallucinogen Salvia divinorum using a double-blind, randomized, placebo-controlled trial. Thirty healthy individuals self-administered Salvia divinorum via combustion and inhalation in a quiet, comfortable research setting. Experimental sessions, post-session interviews, and 8-week follow-up meetings were audio recorded and transcribed to provide the primary qualitative material analyzed here. Additionally, post-session responses to the Hallucinogen Rating Scale provided a quantitative groundwork for mixed-methods discussion. Qualitative data underwent thematic content analysis, being coded independently by three researchers before being collaboratively integrated to provide the final results. Three main themes and 10 subthemes of acute intoxication emerged, encompassing the qualities of the experience, perceptual alterations, and cognitive-affective shifts. The experience was described as having rapid onset and being intense and unique. Participants reported marked changes in auditory, visual, and interoceptive sensory input; losing normal awareness of themselves and their surroundings; and an assortment of delusional phenomena. Additionally, the abuse potential of Salvia divinorum was examined post hoc. These findings are discussed in light of previous research, and provide an initial framework for greater understanding of the subjective effects of Salvia divinorum, an emerging drug of abuse. /Salvia divinorum/
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: IDENTIFICATION AND USE: Salvinorin A forms colorless crystals or white powder. It is a traditional medicine used by the Mazatec people of Oaxaca, Mexico. In traditional medicine, the leaves are used for divination and for treatment of anemia and excretory functions. Currently, neither Salvia divinorum nor any of its

constituents, including salvinorin A, are controlled under the federal Controlled Substances Act (CSA). Neither Salvia divinorum nor its active constituent salvinorin A has an approved medical use in the U.S. However, both the plant and its preparations are becoming increasingly popular among non-traditional users. HUMAN STUDIES: Salvinorin A is a potent and selective kappa opioid receptor agonist. The use of the parent plant Salvia divinorum may cause diuresis, nausea, and dysphoria. Smoking the extract was described as the preferred form of administration. Subjective effects were described as intense but short-lived, appearing in less than 1 min and lasting 15 min or less. They included psychedelic-like changes in visual perception, mood and somatic sensations, and importantly, a highly modified perception of external reality and the self, leading to a decreased ability to interact with oneself or with one's surroundings. ANIMAL STUDIES: Rats were anesthetized and administered salvinorin A at 1600 ug/kg or vehicle. Recordings were made of galvanic skin response, electrocardiogram, temperature, and pulse pressure for 100 minutes. No effects were seen on cardiac conduction, temperature, or galvanic skin response. A nonsignificant rise was seen in pulse pressure. In rats, salvinorin A (80-640 ug/kg) did not affect short-term memory, but it impaired spatial long-term memory. Episodic and aversive memories were impaired by salvinorin A (160-640 ug/kg). Overall, animal studies of salvinorin A show a rapid onset of action and short distribution and elimination half-lives as well as a lack of evidence of short- or long-term toxicity. /LABORATORY ANIMALS: Acute Exposure/ Kappa opioid receptor agonists induce water diuresis in animals and humans. We investigated the effects of s.c. nalfurafine, U50,488H, salvinorin A, and its longer-acting analog, 2-methoxymethyl-salvinorin B (MOM-sal B), on urinary output and sodium excretion over 5 hr in euvolemic rats. Nalfurafine (0.005-0.02 mg/kg), U50,488H (0.1-10 mg/kg), and MOM-sal B (0.625-5 mg/kg) induced diuresis dose-dependently. Systemically (0.1-10 mg/kg) or centrally (50 ug, i.c.v.) administered salvinorin A was ineffective. 5'-Guanidinonaltrindole, a kappa receptor antagonist, inhibited nalfurafine- and MOM-sal B-induced diuresis. Nalfurafine and MOM-sal B had no effect on arginine vasopressin levels, measured at 2 hr. Tolerance did not develop to the diuresis accompanying subchronic administration of nalfurafine (0.02 mg/kg). On the basis of our work, we (a) promote nalfurafine as a candidate diuretic to relieve water retention and (b) highlight salvinorin A as a kappa agonist that does not cause diuresis, probably because of its short duration of action.
- Aspiration hazard: No data available.

Likely routes of exposure
- /HUMAN EXPOSURE STUDIES/ Salvinorin A is a kappa opioid agonist and the principal psychoactive constituent of the Salvia divinorum plant, which has been used for hallucinogenic effects. Previous research on salvinorin A pharmacokinetics likely underestimated plasma levels typically resulting from the doses administered due to inefficient vaporization and not collecting samples during peak drug effects. Six healthy adults inhaled a single high dose of vaporized salvinorin A (n = 4, 21 ug/kg; n = 2, 18 ug/kg). Participant- and monitor-rated effects were assessed every 2 min for 60 min post-inhalation. Blood samples were collected at 13 time points up to 90 min post-inhalation. Drug levels peaked at 2 min and then rapidly decreased. Drug levels were significantly, positively correlated with participant and monitor drug effect ratings. Significant elevations in prolactin were observed beginning 5 min post-inhalation and peaking at 15 min post-inhalation. Cortisol showed inconsistent increases across participants. Hormonal responses were not well correlated with drug levels. This is the first study to demonstrate a direct relationship between changes in plasma levels of salvinorin A and drug effects in humans. The results confirm the efficacy of an inhalation technique for salvinorin A.

Symptoms related to the physical, chemical and toxicological characteristics
- IDENTIFICATION AND USE: Salvinorin A forms colorless crystals or white powder. It is a traditional medicine used by the Mazatec people of Oaxaca, Mexico. In traditional medicine, the leaves are used for divination and for treatment of anemia and excretory functions. Currently, neither Salvia divinorum nor any of its constituents, including salvinorin A, are controlled under the federal Controlled Substances Act (CSA). Neither Salvia divinorum nor its active constituent salvinorin A has an approved medical use in the U.S. However, both the plant and its preparations

are becoming increasingly popular among non-traditional users. HUMAN STUDIES: Salvinorin A is a potent and selective kappa opioid receptor agonist. The use of the parent plant Salvia divinorum may cause diuresis, nausea, and dysphoria. Smoking the extract was described as the preferred form of administration. Subjective effects were described as intense but short-lived, appearing in less than 1 min and lasting 15 min or less. They included psychedelic-like changes in visual perception, mood and somatic sensations, and importantly, a highly modified perception of external reality and the self, leading to a decreased ability to interact with oneself or with one's surroundings. ANIMAL STUDIES: Rats were anesthetized and administered salvinorin A at 1600 ug/kg or vehicle. Recordings were made of galvanic skin response, electrocardiogram, temperature, and pulse pressure for 100 minutes. No effects were seen on cardiac conduction, temperature, or galvanic skin response. A nonsignificant rise was seen in pulse pressure. In rats, salvinorin A (80-640 ug/kg) did not affect short-term memory, but it impaired spatial long-term memory. Episodic and aversive memories were impaired by salvinorin A (160-640 ug/kg). Overall, animal studies of salvinorin A show a rapid onset of action and short distribution and elimination half-lives as well as a lack of evidence of short- or long-term toxicity.

SECTION 12: Ecological information

Not available

SECTION 13: Disposal considerations

Not available

SECTION 14: Transport information

Not available

SECTION 15: Regulatory information

Not available

SECTION 16: Other information

Not available

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