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

Catalogue Number	CS-T-56932
Product Name	Isoxaflutole
CAS No.	141112-29-0
Category	Pesticide Standards
Synonyms	(5-cyclopropylisoxazol-4-yl)(2-(methylsulfonyl)-4-(trifluoromethyl)phenyl)methanone
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:

Not available

2.2 Label Elements

Signal Word: Warning



Hazard Statement(s)

Code	Statement
H400	Not available
H410	Not available
H361	Not available

Precautionary Statement(s)

Code	Statement
P203	Not available
P273	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P318	Not available
P391	Not available
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Isoxaflutole
CAS Number : 141112-29-0
Molecular Formula : C15H12F3NO4S
Molecular Weight : 359.32
Parent Chemical : -
Synonyms : (5-cyclopropylisoxazol-4-yl)(2-(methylsulfonyl)-4-(trifluoromethyl)phenyl)methanone
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: LC50 (rat) = 5,230 mg/m3/4h /LABORATORY ANIMALS: Acute Exposure/ Not a skin irritant; minimal eye irritation (rabbits). Not a skin sensitiser.
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: /LABORATORY ANIMALS: Acute Exposure/ Not a skin irritant; minimal eye irritation (rabbits). Not a skin sensitiser.
- Respiratory or skin sensitization: /LABORATORY ANIMALS: Acute Exposure/ Not a skin irritant; minimal eye irritation (rabbits). Not a skin sensitiser.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: Cancer Classification: Likely to be Carcinogenic to Humans
- Reproductive toxicity: No data available.
- STOT-single exposure: /LABORATORY ANIMALS: Subchronic or Prechronic Exposure/ In a 28-day preliminary dietary study, groups of 10 male or female CD-1 mice received isoxaflutole (99.9% purity) via dietary administration at concentrations of 0, 175, 700, 2800 or 7000 ppm daily for 28 days. The dose levels were equal to 0, 29.4, 120.7, 474.6 and 1140.1 mg/kg bw/day in males and 0, 34.7, 142.9, 534.4 and 1347.4 mg/kg bw/day in females. There were no treatment-related mortalities, clinical or ophthalmoscopic observations or treatment-related effects on body weight, body-weight gain or food consumption. The liver appeared to be the target organ. Significant treatment-related clinical chemistry findings included increased alanine aminotransferase (ALAT) (males at 2800 and 7000 ppm and females at 700, 2800 and 7000 ppm) and aspartate aminotransferase (ASAT) (males at 2800 and 7000 ppm and females at 7000 ppm) activity. Increased liver weights were observed at all dose levels in both sexes. Significant treatment-related gross pathological observations were noted in the liver and included enlarged liver (males at 700, 2800 and 7000 ppm and females at 2800 and 7000 ppm) and white striations (both sexes at 7000 ppm). Treatment-related histopathological findings in the liver included centrilobular hepatocellular hypertrophy (both sexes at 700 ppm and above) and hepatocellular necrosis (males at 2800 and 7000 ppm and females at 7000 ppm). Other histopathological findings included increased extramedullary hematopoiesis in spleen(both sexes at 7000 ppm) and X-zone cell vacuolation in the adrenal glands (females at 7000 ppm). In the absence of any other significant findings at 175 ppm, the increased liver weights were considered a minor adaptive change; therefore, the no observed adverse effect level (NOAEL) was 175 ppm, equal to 29 mg/kg bw/day in males and 35 mg/kg bw/day in females.
- STOT-repeated exposure: /LABORATORY ANIMALS: Subchronic or Prechronic Exposure/ In a 90-day dietary study, groups of 10 CD rats/sex/dose received either 0, 1.0, 3.0, 10 or 100 mg/kg bw/day isoxaflutole (purity 99.4%) via dietary administration daily for 13 weeks and three days. There were no treatment-related mortalities and no treatment-related effects on body weight, body-weight gain, food consumption or food efficiency. There were no significant treatment-related effects on hematological, clinical chemistry or urinalysis parameters examined. Treatment-related findings in males at 100 mg/kg bw/day included increased absolute and relative liver weights, with an associated increased incidence of periacinar hepatocytic hypertrophy; these were considered to be an adaptive response and not adverse. Significant treatment-related clinical, ophthalmoscopic, gross pathological and histopathological findings were observed in the eye in males at 10 mg/kg bw/day and in both sexes at 100 mg/kg bw/day. Clinical and ophthalmoscopic observations included increased incidences of bilateral and unilateral opaque eyes and focal corneal opacity, respectively. Focal corneal opacity was first apparent during week 3 and persisted throughout the study. Significant gross pathological observation included an increased incidence of corneal opacity (unilateral and bilateral) in both sexes at 100 mg/kg bw/day. The overall incidence of corneal lesions was similar in both sexes, although the severity of the lesions was more significant in the males. The most notable

histopathological findings included vacuolation (males and females) and superficial exfoliation of the epithelial cells (males and females), epithelial thickening (males), necrosis and inflammation (males and females), subepithelial fibroblastic reaction (males and females) and vascularization of the stroma (males and females). The changes were considered by the study author to be reversible after a short recovery period following cessation of treatment in the previous study..., with the exception of residual evidence of tissue repair detectable only by histopathological examination. There were no treatment-related effects at 1.0 or 3.0 mg/kg bw/day; therefore, the NOEL for isoxaflutole was 3.0 mg/kg bw/day. /LABORATORY ANIMALS: Subchronic or Prechronic Exposure/ In a 28-day preliminary dietary study, groups of 10 male or female CD-1 mice received isoxaflutole (99.9% purity) via dietary administration at concentrations of 0, 175, 700, 2800 or 7000 ppm daily for 28 days. The dose levels were equal to 0, 29.4, 120.7, 474.6 and 1140.1 mg/kg bw/day in males and 0, 34.7, 142.9, 534.4 and 1347.4 mg/kg bw/day in females. There were no treatment-related mortalities, clinical or ophthalmoscopic observations or treatment-related effects on body weight, body-weight gain or food consumption. The liver appeared to be the target organ. Significant treatment-related clinical chemistry findings included increased alanine aminotransferase (ALAT) (males at 2800 and 7000 ppm and females at 700, 2800 and 7000 ppm) and aspartate aminotransferase (ASAT) (males at 2800 and 7000 ppm and females at 7000 ppm) activity. Increased liver weights were observed at all dose levels in both sexes. Significant treatment-related gross pathological observations were noted in the liver and included enlarged liver (males at 700, 2800 and 7000 ppm and females at 2800 and 7000 ppm) and white striations (both sexes at 7000 ppm). Treatment-related histopathological findings in the liver included centrilobular hepatocellular hypertrophy (both sexes at 700 ppm and above) and hepatocellular necrosis (males at 2800 and 7000 ppm and females at 7000 ppm). Other histopathological findings included increased extramedullary hematopoiesis in spleen(both sexes at 7000 ppm) and X-zone cell vacuolation in the adrenal glands (females at 7000 ppm). In the absence of any other significant findings at 175 ppm, the increased liver weights were considered a minor adaptive change; therefore, the no observed adverse effect level (NOAEL) was 175 ppm, equal to 29 mg/kg bw/day in males and 35 mg/kg bw/day in females.
- Aspiration hazard: No data available.

Likely routes of exposure
- LC50 Rat inhalation >5.23 mg/L 4 hr

Symptoms related to the physical, chemical and toxicological characteristics
- /LABORATORY ANIMALS: Subchronic or Prechronic Exposure/ In a 90-day dietary study, groups of 10 CD rats/sex/dose received either 0, 1.0, 3.0, 10 or 100 mg/kg bw/day isoxaflutole (purity 99.4%) via dietary administration daily for 13 weeks and three days. There were no treatment-related mortalities and no treatment-related effects on body weight, body-weight gain, food consumption or food efficiency. There were no significant treatment-related effects on hematological, clinical chemistry or urinalysis parameters examined. Treatment-related findings in males at 100 mg/kg bw/day included increased absolute and relative liver weights, with an associated increased incidence of periacinar hepatocytic hypertrophy; these were considered to be an adaptive response and not adverse. Significant treatment-related clinical, ophthalmoscopic, gross pathological and histopathological findings were observed in the eye in males at 10 mg/kg bw/day and in both sexes at 100 mg/kg bw/day. Clinical and ophthalmoscopic observations included increased incidences of bilateral and unilateral opaque eyes and focal corneal opacity, respectively. Focal corneal opacity was first apparent during week 3 and persisted throughout the study. Significant gross pathological observation included an increased incidence of corneal opacity (unilateral and bilateral) in both sexes at 100 mg/kg bw/day. The overall incidence of corneal lesions was similar in both sexes, although the severity of the lesions was more significant in the males. The most notable histopathological findings included vacuolation (males and females) and superficial exfoliation of the epithelial cells (males and females), epithelial thickening (males), necrosis and inflammation (males and females), subepithelial fibroblastic reaction (males and females) and vascularization of the stroma (males and females). The changes were

considered by the study author to be reversible after a short recovery period following cessation of treatment in the previous study..., with the exception of residual evidence of tissue repair detectable only by histopathological examination. There were no treatment-related effects at 1.0 or 3.0 mg/kg bw/day; therefore, the NOEL for isoxaflutole was 3.0 mg/kg bw/day.

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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