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

Catalogue Number	CS-ER-00415
Product Name	Carprofen Related Compound A
CAS No.	86-74-8
Category	Secondary Standards
Synonyms	Chlorophenesin carbamate; Dibenzo[b,d]pyrrole
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:

Skin irritation (Category 2)

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s)

Code	Statement
H315	Causes skin irritation.
H341	Not available
H351	Not available
H400	Not available

H411	Toxic to aquatic life with long lasting effects.
H413	Not available
H373	Not available
H410	Not available
H340	Not available

Precautionary Statement(s)

Code	Statement
P203	Not available
P264	Wash hands thoroughly after handling.
P273	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P318	Not available
P321	Specific treatment (see … on this label).
P332+P317	If skin irritation occurs: Get medical help.
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Not available
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio
P260	Not available
P319	Get medical help if you feel unwell.

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Carprofen Related Compound A
CAS Number : 86-74-8
Molecular Formula : C12H9N
Molecular Weight : 167.21
Parent Chemical : Carprofen
Synonyms : Chlorophenesin carbamate; Dibenzo[b,d]pyrrole
Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures
- General advice: Show this Safety Data Sheet to the physician in attendance. Remove contaminated clothing and shoes.
- Inhalation: Move person to fresh air. If breathing is difficult, seek medical attention.
- Skin contact: Wash with plenty of soap and water. Seek medical attention if irritation persists.
- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
- Ingestion: Rinse mouth. Do not induce vomiting unless directed by medical personnel. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed
- Not available.

4.3 Indication of any immediate medical attention and special treatment needed
- Treat symptomatically.
- Not available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
- Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO2).
- Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
- Specific hazards: Not available.
- Hazardous combustion products: Carbon oxides; hydrogen chloride and other halogenated compounds (if applicable). Exact composition not available.

5.3 Advice for firefighters
- Wear self-contained breathing apparatus (SCBA) and full protective gear.
- Use water spray to cool unopened containers.
- Avoid inhalation of combustion products.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Avoid dust formation and breathing dust.
- Use appropriate personal protective equipment (see Section 8).
- Ensure adequate ventilation.

6.2 Environmental precautions
- Prevent further leakage or spillage if safe to do so.
- Avoid release to the environment. Do not allow to enter drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up
- Collect spilled material using methods that minimize dust generation.
- Place in a suitable, closed container for disposal.
- Clean contaminated area with appropriate cleaning methods; avoid creating airborne dust.

6.4 Reference to other sections
- See Section 8 for personal protective equipment and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Handle in accordance with good industrial hygiene and safety practice.
- Avoid contact with skin and eyes.
- Avoid breathing dust/fume/mist/vapors.
- Use with adequate ventilation. Avoid dust generation.

7.2 Conditions for safe storage, including any incompatibilities
- Store in a tightly closed container.
- Store in a cool, dry, well-ventilated place.
- Protect from moisture.
- Incompatible materials: Not available.

7.3 Specific end use(s)
- Laboratory/research use; secondary standard. Not for human or veterinary use.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- Occupational exposure limits: Not available.
- Biological limit values: Not available.

8.2 Exposure controls
- Appropriate engineering controls: Use local exhaust ventilation or general ventilation to minimize exposure.

Personal protective equipment (PPE)
- Eye/face protection: Safety glasses with side shields or chemical splash goggles.
- Skin protection: Protective gloves (material not available); lab coat or protective clothing.
- Respiratory protection: If ventilation is inadequate or dust is generated, use an appropriate particulate respirator per applicable standards.
- Hygiene measures: Wash hands after handling. Do not eat, drink, or smoke when using this product. Remove contaminated clothing and wash before reuse.

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

SECTION 10: Stability and reactivity

10.1 Reactivity
- Not available.

10.2 Chemical stability
- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
- Not available.

10.4 Conditions to avoid
- Heat, open flames, and sources of ignition.
- Dust generation.
- Moisture (if applicable).

10.5 Incompatible materials
- Not available.

10.6 Hazardous decomposition products
- Not available. May form carbon oxides and halogenated compounds under fire conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: IDENTIFICATION AND USE: Carbazole is a solid. Carbazole occurs in the products of incomplete combustion of nitrogen-containing organic matter, e.g., tobacco. It is an important dye intermediate. It is also used in making photographic plates sensitive to ultraviolet light, and as reagent for lignin, carbohydrates, and formaldehyde. Carbazole exhibits wide range of biological activity upon modifications, including antibacterial, antimalarial, anticancer, and anti-Alzheimer properties. HUMAN EXPOSURE AND TOXICITY: There are no data available. ANIMAL STUDIES: Groups of 50 male and 50 female mice, six weeks of age, were fed a pellet diet containing technical grade carbazole at concentrations of 0.6, 0.3 or 0.15% or none (control group). The treatment was continued for 96 weeks; the animals were then fed a basal diet until killed in week 104. Neoplastic lesions were found in the liver and in the forestomach. The lesions in liver were classified as neoplastic nodules and hepatocellular carcinomas. The incidences of both types of lesion in livers of all the groups fed carbazole were significantly greater than that in the control group. In rats, no signs of maternal or developmental toxicity were noted after dermal administration of carbazole at doses of 2.5, 25.0, and 250.0 mg/kg. Carbazole was nonmutagenic with or without metabolic activation in the Ames assay. It is moderately clastogenic in mice when administered intraperitoneally. It induced dominant lathality and sperm-head abnormalities in male mice. /LABORATORY ANIMALS: Developmental or Reproductive Toxicity/ The objectives of this study were (1) to determine the developmental toxicity of carbazole and benzo(a)carbazole following daily dermal administration to female Sprague-Dawley rats on days 0 through 20 of gestation and (2) to determine the mutagenicity of these two compounds using a modified version of the Ames assay. These chemicals are of concern because they are found in a variety of environmental matrices including crude oil mixtures. No signs of maternal or developmental toxicity were considered to be related to dermal administration of carbazole at doses of 2.5, 25.0, and 250.0 mg/kg. Signs of maternal toxicity considered to be related to administration of benzo(a)carbazole included significantly decreased body-weight gain and decreased absolute-food consumption at a dose of 250.0 mg/kg. Signs of developmental toxicity considered to be related to administration of benzo(a)carbazole included significantly decreased number of total (live and dead combined) and live pups on lactation day 0 as well as significantly decreased average pup weight on lactation days 0 and 4 at a dose of 250.0 mg/kg. Because developmental toxicity following benzo(a)carbazole treatment was observed only at a dose at which maternal toxicity was observed, it is likely that the effects on the offspring are secondary to the treatment effects on the dam. Evidence of toxic effects with benzo(a)carbazole in the absence of effects with carbazole suggests that the substituted benzene ring enhances the biological activity of this compound. Carbazole was nonmutagenic with or without S-9 activation, whereas

benzo(a)carbazole showed a clear dose-response with S-9 activation. Without S-9 activation, benzo(a)carbazole was nonmutagenic. Apparently benzo(a)carbazole must be enzymatically activated in order to be mutagenic.
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: IDENTIFICATION AND USE: Carbazole is a solid. Carbazole occurs in the products of incomplete combustion of nitrogen-containing organic matter, e.g., tobacco. It is an important dye intermediate. It is also used in making photographic plates sensitive to ultraviolet light, and as reagent for lignin, carbohydrates, and formaldehyde. Carbazole exhibits wide range of biological activity upon modifications, including antibacterial, antimalarial, anticancer, and anti-Alzheimer properties. HUMAN EXPOSURE AND TOXICITY: There are no data available. ANIMAL STUDIES: Groups of 50 male and 50 female mice, six weeks of age, were fed a pellet diet containing technical grade carbazole at concentrations of 0.6, 0.3 or 0.15% or none (control group). The treatment was continued for 96 weeks; the animals were then fed a basal diet until killed in week 104. Neoplastic lesions were found in the liver and in the forestomach. The lesions in liver were classified as neoplastic nodules and hepatocellular carcinomas. The incidences of both types of lesion in livers of all the groups fed carbazole were significantly greater than that in the control group. In rats, no signs of maternal or developmental toxicity were noted after dermal administration of carbazole at doses of 2.5, 25.0, and 250.0 mg/kg. Carbazole was nonmutagenic with or without metabolic activation in the Ames assay. It is moderately clastogenic in mice when administered intraperitoneally. It induced dominant lathality and sperm-head abnormalities in male mice. /LABORATORY ANIMALS: Developmental or Reproductive Toxicity/ The objectives of this study were (1) to determine the developmental toxicity of carbazole and benzo(a)carbazole following daily dermal administration to female Sprague-Dawley rats on days 0 through 20 of gestation and (2) to determine the mutagenicity of these two compounds using a modified version of the Ames assay. These chemicals are of concern because they are found in a variety of environmental matrices including crude oil mixtures. No signs of maternal or developmental toxicity were considered to be related to dermal administration of carbazole at doses of 2.5, 25.0, and 250.0 mg/kg. Signs of maternal toxicity considered to be related to administration of benzo(a)carbazole included significantly decreased body-weight gain and decreased absolute-food consumption at a dose of 250.0 mg/kg. Signs of developmental toxicity considered to be related to administration of benzo(a)carbazole included significantly decreased number of total (live and dead combined) and live pups on lactation day 0 as well as significantly decreased average pup weight on lactation days 0 and 4 at a dose of 250.0 mg/kg. Because developmental toxicity following benzo(a)carbazole treatment was observed only at a dose at which maternal toxicity was observed, it is likely that the effects on the offspring are secondary to the treatment effects on the dam. Evidence of toxic effects with benzo(a)carbazole in the absence of effects with carbazole suggests that the substituted benzene ring enhances the biological activity of this compound. Carbazole was nonmutagenic with or without S-9 activation, whereas benzo(a)carbazole showed a clear dose-response with S-9 activation. Without S-9 activation, benzo(a)carbazole was nonmutagenic. Apparently benzo(a)carbazole must be enzymatically activated in order to be mutagenic.
- Carcinogenicity: IDENTIFICATION AND USE: Carbazole is a solid. Carbazole occurs in the products of incomplete combustion of nitrogen-containing organic matter, e.g., tobacco. It is an important dye intermediate. It is also used in making photographic plates sensitive to ultraviolet light, and as reagent for lignin, carbohydrates, and formaldehyde. Carbazole exhibits wide range of biological activity upon modifications, including antibacterial, antimalarial, anticancer, and anti-Alzheimer properties. HUMAN EXPOSURE AND TOXICITY: There are no data available. ANIMAL STUDIES: Groups of 50 male and 50 female mice, six weeks of age, were fed a pellet diet containing technical grade carbazole at concentrations of 0.6, 0.3 or 0.15% or none (control group). The treatment was continued for 96 weeks; the animals were then fed a basal diet until killed in week 104. Neoplastic lesions were found in the liver and in the forestomach. The lesions in liver were classified as neoplastic nodules and hepatocellular carcinomas. The incidences of both types of lesion in livers of all the groups fed carbazole were

significantly greater than that in the control group. In rats, no signs of maternal or developmental toxicity were noted after dermal administration of carbazole at doses of 2.5, 25.0, and 250.0 mg/kg. Carbazole was nonmutagenic with or without metabolic activation in the Ames assay. It is moderately clastogenic in mice when administered intraperitoneally. It induced dominant lathality and sperm-head abnormalities in male mice. Inadequate information to assess carcinogenic potential
- Reproductive toxicity: IDENTIFICATION AND USE: Carbazole is a solid. Carbazole occurs in the products of incomplete combustion of nitrogen-containing organic matter, e.g., tobacco. It is an important dye intermediate. It is also used in making photographic plates sensitive to ultraviolet light, and as reagent for lignin, carbohydrates, and formaldehyde. Carbazole exhibits wide range of biological activity upon modifications, including antibacterial, antimalarial, anticancer, and anti-Alzheimer properties. HUMAN EXPOSURE AND TOXICITY: There are no data available. ANIMAL STUDIES: Groups of 50 male and 50 female mice, six weeks of age, were fed a pellet diet containing technical grade carbazole at concentrations of 0.6, 0.3 or 0.15% or none (control group). The treatment was continued for 96 weeks; the animals were then fed a basal diet until killed in week 104. Neoplastic lesions were found in the liver and in the forestomach. The lesions in liver were classified as neoplastic nodules and hepatocellular carcinomas. The incidences of both types of lesion in livers of all the groups fed carbazole were significantly greater than that in the control group. In rats, no signs of maternal or developmental toxicity were noted after dermal administration of carbazole at doses of 2.5, 25.0, and 250.0 mg/kg. Carbazole was nonmutagenic with or without metabolic activation in the Ames assay. It is moderately clastogenic in mice when administered intraperitoneally. It induced dominant lathality and sperm-head abnormalities in male mice. /LABORATORY ANIMALS: Developmental or Reproductive Toxicity/ The objectives of this study were (1) to determine the developmental toxicity of carbazole and benzo(a)carbazole following daily dermal administration to female Sprague-Dawley rats on days 0 through 20 of gestation and (2) to determine the mutagenicity of these two compounds using a modified version of the Ames assay. These chemicals are of concern because they are found in a variety of environmental matrices including crude oil mixtures. No signs of maternal or developmental toxicity were considered to be related to dermal administration of carbazole at doses of 2.5, 25.0, and 250.0 mg/kg. Signs of maternal toxicity considered to be related to administration of benzo(a)carbazole included significantly decreased body-weight gain and decreased absolute-food consumption at a dose of 250.0 mg/kg. Signs of developmental toxicity considered to be related to administration of benzo(a)carbazole included significantly decreased number of total (live and dead combined) and live pups on lactation day 0 as well as significantly decreased average pup weight on lactation days 0 and 4 at a dose of 250.0 mg/kg. Because developmental toxicity following benzo(a)carbazole treatment was observed only at a dose at which maternal toxicity was observed, it is likely that the effects on the offspring are secondary to the treatment effects on the dam. Evidence of toxic effects with benzo(a)carbazole in the absence of effects with carbazole suggests that the substituted benzene ring enhances the biological activity of this compound. Carbazole was nonmutagenic with or without S-9 activation, whereas benzo(a)carbazole showed a clear dose-response with S-9 activation. Without S-9 activation, benzo(a)carbazole was nonmutagenic. Apparently benzo(a)carbazole must be enzymatically activated in order to be mutagenic.
- STOT-single exposure: /AQUATIC SPECIES/ The present study examined photo-induced toxicity and toxicokinetics for acute exposure to selected polycyclic aromatic hydrocarbons (PAHs) in zebrafish. Photo-enhanced toxicity from co-exposure to ultraviolet (UV) radiation and PAHs enhanced the toxicity and exhibited toxic effects at PAH concentrations orders of magnitude below effects observed in the absence of UV. Because environmental exposure to PAHs is usually in the form of complex mixtures, the present study examined the photo-induced toxicity of both single compounds and mixtures of PAHs. In a sensitive larval life stage of zebrafish, acute photo-induced median lethal concentrations (LC50s) were derived for 4 PAHs (anthracene, pyrene, carbazole, and phenanthrene) to examine the hypothesis that phototoxic (anthracene and pyrene) and nonphototoxic (carbazole and phenanthrene) pathways of mixtures could be predicted from single exposures. Anthracene and pyrene were phototoxic as predicted; however, carbazole exhibited moderate photo-induced toxicity and phenanthrene exhibited

weak photo-induced toxicity. The toxicity of each chemical alone was used to compare the toxicity of mixtures in binary, tertiary, and quaternary combinations of these PAHs, and a predictive model for environmental mixtures was generated. The results indicated that the acute toxicity of PAH mixtures was additive in phototoxic scenarios, regardless of the magnitude of photo-enhancement. Based on PAH concentrations found in water and circumstances of high UV dose to aquatic systems, there exists potential risk of photo-induced toxicity to aquatic organisms.
- STOT-repeated exposure: /LABORATORY ANIMALS: Chronic Exposure or Carcinogenicity/ A group of ten male A strain mice, three to four months old, received six sc injections, in the left flank, of 10 mg crystallized carbazole moistened with glycerol. All ten mice were still alive after one year and four after 19 months. No tumor reported at the injection site. /LABORATORY ANIMALS: Chronic Exposure or Carcinogenicity/ Groups of 50 male and 50 female B6C3 F1 mice, six weeks of age, were fed a pellet diet containing technical grade carbazole (purity, 96%) at concentrations of 0.6, 0.3 or 0.15% or none (control group). The treatment was continued for 96 weeks; the animals were then fed a basal diet until killed in week 104. Neoplastic lesions were found in the liver and in the forestomach. The lesions in liver were classified as neoplastic nodules and hepatocellular carcinomas. The incidences of both types of lesion in livers of all the groups fed carbazole were significantly ($p < 0.05$) greater than that in the control group. The incidences of neoplastic nodules and hepatocellular carcinomas were, respectively: in the high-dose group, females: 16/46 (34.8%) and 30/46 (65.2%) with 3 (10%) lung metastases; males: 10/48 (20.9%) and 37/48 (77.1%) with 11 (29.7%) lung metastases; mid-dose group, females: 21/43 (48.8%) and 24/43 (55.8%) with 3 (12.5%) lung metastases; males: 22/42 (52.4%) and 20/42 (47.4%) with 7 (35%) lung metastases; low-dose group, females: 13/49 (26.5%) and 35/49 (71.4%) with 5 (14.3%) lung metastases, males: 30/42 (71.4%) and 12/42 (28.6%) with 2 (16.7%) lung metastases. In control animals, with a mean survival time of about 100 weeks, the incidences of neoplastic nodules and hepatocellular carcinomas were, respectively, 4.4% (2/45) and 4.4% (2/45) in females and 28.2% (13/46) and 19.6% (9/46) in males. The numbers of papillomas in the forestomach in groups of mice given 0.6% carbazole were 4/46 in females ($p < 0.05$) and 4/48 in males ($p < 0.05$); in mice given 0.3%, 7/43 in females ($p < 0.01$) and 1/42 in males; in mice given 0.15%, 5/49 in females ($p < 0.05$) and 0/42 in males, whereas no such tumor was observed in the respective control groups (female 0/45, male 0/46). Squamous cell carcinoma incidence was increased significantly ($p < 0.01$) in males fed 0.6% carbazole (7/48, 14.6%). No squamous cell carcinoma was observed in the forestomachs of male or female controls.
- Aspiration hazard: No data available.

Likely routes of exposure
- No data available.

Symptoms related to the physical, chemical and toxicological characteristics
- IDENTIFICATION AND USE: Carbazole is a solid. Carbazole occurs in the products of incomplete combustion of nitrogen-containing organic matter, e.g., tobacco. It is an important dye intermediate. It is also used in making photographic plates sensitive to ultraviolet light, and as reagent for lignin, carbohydrates, and formaldehyde. Carbazole exhibits wide range of biological activity upon modifications, including antibacterial, antimalarial, anticancer, and anti-Alzheimer properties. HUMAN EXPOSURE AND TOXICITY: There are no data available. ANIMAL STUDIES: Groups of 50 male and 50 female mice, six weeks of age, were fed a pellet diet containing technical grade carbazole at concentrations of 0.6, 0.3 or 0.15% or none (control group). The treatment was continued for 96 weeks; the animals were then fed a basal diet until killed in week 104. Neoplastic lesions were found in the liver and in the forestomach. The lesions in liver were classified as neoplastic nodules and hepatocellular carcinomas. The incidences of both types of lesion in livers of all the groups fed carbazole were significantly greater than that in the control group. In rats, no signs of maternal or developmental toxicity were noted after dermal administration of carbazole at doses of 2.5, 25.0, and 250.0 mg/kg. Carbazole was nonmutagenic with or without metabolic activation in the Ames assay. It is moderately clastogenic in mice when administered

intraperitoneally. It induced dominant lathality and sperm-head abnormalities in male mice.

SECTION 12: Ecological information

SECTION 12: Ecological information

12.1 Toxicity
- Not available.

12.2 Persistence and degradability
- Not available.

12.3 Bioaccumulative potential
- Not available.

12.4 Mobility in soil
- Not available.

12.5 Results of PBT and vPvB assessment
- Not available.

12.6 Endocrine disrupting properties
- Not available.

12.7 Other adverse effects
- Not available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Dispose of contents/container in accordance with local/regional/national/international regulations.
- Do not discharge to drains.
- Recommended disposal method: Incineration or disposal via a licensed chemical waste contractor, as appropriate.
- Contaminated packaging: Dispose of as unused product unless cleaned and permitted by regulations.

SECTION 14: Transport information

SECTION 14: Transport information

- UN number: Not available.
- UN proper shipping name: Not available.
- Transport hazard class(es): Not available.
- Packing group: Not available.
- Environmental hazards: Not available.
- Special precautions for user: Not available.
- Transport in bulk according to IMO instruments: Not available.

Note: Transport classification may vary by mode and jurisdiction; confirm with carrier and applicable regulations.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulatory status/inventories: Not available.
- GHS classification: Not available.
- Label elements: Not available.

15.2 Chemical safety assessment
- Not available.

SECTION 16: Other information

SECTION 16: Other information

Product identification
- Product name: Carprofen Related Compound A
- Catalog No.: CS-ER-00415
- CAS No.: 86-74-8
- Category: Secondary Standards
- Molecular weight: 167.21
- Synonyms: Chlorophenesin carbamate; Dibenzo[b,d]pyrrole
- Parent chemical: Carprofen

Supplier information
- Supplier: Clearsynth Labs Ltd., Mumbai, India
- Emergency phone: +91-22-245045900

Disclaimer
- The information provided is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. No warranty is expressed or implied regarding the accuracy or completeness of this information.
- This material is intended for laboratory/research use by trained personnel.

DISCLAIMER

This MSDS is system-generated. Please verify and confirm all data, statements, and values with the Support Team before use or distribution.