



SAFETY DATA SHEET (SDS): According to the OSHA Hazard Communication Standard 29 CFR 1910.1200
Issuing Date: 2015-01-20 **Revision Date:** 2015-01-20

Version: 1

SECTION 1. Identification

Product identifier

Product number 14704
Product name Tyrophostin AG-490
Other means of identification 14704L, 14704M, 14704S

Recommended use of the chemical and restrictions on use

Identified uses This product is intended for research purposes only.
Uses advised against This product is not intended for use in diagnostic procedures or therapeutics.
This product is not intended for use in humans or animals.

Manufacturer, importer, supplier

Manufacturer address Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
United States
TEL: +1 978 867 2300
FAX: +1 978 867 2400

Website www.cellsignal.com
Email address support@cellsignal.com
Company phone number 978-867-2300
Emergency telephone number In case of emergency call CHEMTREC 1-800-424-9300

SECTION 2. Hazard(s) identification

Classification

This substance/mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Label elements, including precautionary statements

Signal Word
None

Hazard statement(s)
None

Precautionary Statement(s)
None

Supplementary Hazard Information

Hazards not otherwise classified (HNOC) None

SECTION 3. Composition/information on ingredients

Formula C₁₇H₁₄N₂O₃

| | |
|-------------------------|--|
| Molecular Weight | 294.30 g/mol |
| Chemical nature | Monoconstituent substance |
| Synonyms | Tyrohostin AG 490; N-Benzyl-3,4-dihydroxybenzylidenecyanoacetamide; 2-Cyano-3-(3,4-dihydroxyphenyl)-N-(phenylmethyl)-2-propenamide |

| Chemical Name | CAS No | Weight % |
|--|-------------|----------|
| (Z)-N-benzyl-2-cyano-3-(3,4-dihydroxyphenyl)prop-2-enamide | 134036-52-5 | 100 |

SECTION 4. First-aid measures

| | |
|---------------------|--|
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| Skin contact | Wash skin with soap and water. |
| Inhalation | Move to fresh air. |
| Ingestion | Clean mouth with water and afterwards drink plenty of water. |

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Advice for emergency responders

| | |
|-----------------------------------|--|
| General advice | For further assistance, contact your local Poison Control Center. |
| Protection of first-aiders | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

SECTION 5. Fire-fighting measures

Extinguishing media

| | |
|---------------------------------------|---|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable Extinguishing Media | CAUTION: Use of water spray when fighting fire may be inefficient. |

Specific hazards arising from the chemical

No information available.

Explosion Data

| | |
|---|-------|
| Sensitivity to Mechanical Impact | None. |
| Sensitivity to Static Discharge | None. |

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| | |
|------------------------------------|------------------------------|
| For non-emergency personnel | Ensure adequate ventilation. |
| Other information | No information available. |

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

| | |
|--------------------------------|---|
| Methods for containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Use personal protective equipment. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically and collect in suitable container for disposal. Avoid dust formation. Clean contaminated surface thoroughly. |

SECTION 7. Handling and storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

| | |
|--|--|
| Technical measures/Storage conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. |
| Packaging material | No information available. |
| Incompatible products | None known based on information supplied. |

SECTION 8. Exposure controls/personal protection

Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

| | |
|---------------------------------|---|
| Eye/face protection | Safety glasses with side-shields. |
| Skin and body protection | Wear protective gloves/clothing. |
| Respiratory protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| Hygiene measures | Handle in accordance with good industrial hygiene and safety practice. |

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

| | |
|-------------------------------------|--------------------------|
| Physical state | Solid |
| Appearance | Crystalline powder |
| Odor | No information available |
| Color | Yellow to green or tan |
| Odor Threshold | No information available |
| pH | No information available |
| Melting point/freezing point | 213-225 °C |

| | |
|--|---------------------------|
| Initial boiling point and boiling range | No information available |
| Flash point | No information available. |
| Evaporation rate | No information available |
| Flammability (solid, gas) | No information available |
| Upper flammability limit | No information available. |
| Lower flammability limit | No information available. |
| Vapor pressure | No information available |
| Vapor density | No information available |
| Relative density | No information available |
| Solubility | Practically insoluble |
| Solubility in other solvents | No information available |
| Partition coefficient: n-octanol/water | No information available |
| Autoignition temperature | No information available |
| Decomposition temperature | No information available. |
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| Molecular Weight | 294.30 g/mol |
| VOC content | No information available |
| Viscosity | No information available. |
| Density | No information available. |

SECTION 10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

| | |
|---------------------------------|-------------------------------|
| Hazardous reactions | None under normal processing. |
| Hazardous polymerization | None under normal processing. |

Conditions to Avoid

No information available.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

SECTION 11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | Inhalation of particulates may cause mechanical irritation to upper respiratory tract. |
| Eye contact | Contact with eyes may cause mechanical irritation. |
| Skin contact | Contact with skin may cause mechanical irritation. |
| Ingestion | May be harmful if swallowed. |

Information on toxicological effects

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|---------------------------------|--|
| Symptoms | No information available. |
| Sensitization | No information available. |
| Mutagenic effects | No information available. |
| Carcinogenicity | No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA. |
| Reproductive toxicity | No information available. |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Neurological effects | No information available. |
| Aspiration Hazard | No information available. |

SECTION 12. Ecological information

Ecotoxicity

Product does not present an aquatic toxicity hazard based on known or supplied information.

| | |
|--------------------------------------|---------------------------|
| Persistence and degradability | No information available. |
| Bioaccumulation | No information available. |
| Mobility | No information available. |

Other adverse effects

No information available.

SECTION 13. Disposal considerations

Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.

SECTION 15. Regulatory information

North American Inventory Listing

| Chemical Name | TSCA 8(b) | TSCA 12(b) | DSL | NDSL |
|--|------------|------------|------------|------------|
| (Z)-N-benzyl-2-cyano-3-(3,4-dihydroxyphenyl)prop-2-enamide | Not Listed | Not Listed | Not Listed | Not Listed |

Canadian Workplace Hazardous Materials Information System (WHMIS) Classification

This product does not meet the criteria for classification under the Hazardous Products Act.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

| | |
|--|----|
| Acute Health Hazard | No |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. FIFRA Label Information

This product does not contain any substances regulated as pesticides.

US Commerce Department - Export Administration Regulations Information

This product does not contain any substances regulated under the Chemical Weapons Convention (CWC).

U.S. Drug Enforcement Administration Information

This product does not contain any substances regulated under the DEA.

SECTION 16. Other information

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet