1. PRODUCT AND COMPANY IDENTIFICATION

Product name: AZD6244
Recommended use: For research use only

Supplier Address: Abcam Inc
1 Kendall Square, Ste 341
Cambridge, MA 02139-1517
USA
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

E-mail address: technical@abcam.com

Emergency telephone: Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free) - Monday-Friday 8am-9pm EST

2. HAZARDS IDENTIFICATION

GHS - Classification

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>1</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>1</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>2</td>
</tr>
<tr>
<td>Specific target organ systemic toxicity</td>
<td></td>
</tr>
<tr>
<td>(repeated exposure)</td>
<td></td>
</tr>
</tbody>
</table>

GHS Label elements, including precautionary statements

Signal Word
Danger

Hazard statements
H318 - Causes serious eye damage
H317 - May cause an allergic skin reaction
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary Statements - EU (§28, 1272/2008)
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P263 - Avoid contact during pregnancy/ while nursing
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves/ eye protection/ face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P363 - Wash contaminated clothing before reuse
P501 - Dispose of contents/ container to an approved waste disposal plant
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308 + P313 - IF exposed or concerned: Get medical advice/ attention
P310 - Immediately call a POISON CENTER or doctor/ physician
P314 - Get medical advice/ attention if you feel unwell
P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention
P262 - Do not get in eyes, on skin, or on clothing
P264 - Wash face, hands and any exposed skin thoroughly after handling
P405 - Store locked up

Other information
Caution – substance not yet tested completely
May be irritating to mucous membranes
May cause irritation of respiratory tract
May be harmful by inhalation or skin absorption
May be harmful if swallowed
May produce an allergic skin reaction
May cause damage to organs through prolonged or repeated exposure
May cause eye/skin irritation
May cause respiratory system irritation
Suspected of damaging fertility or the unborn child.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Classification (Reg. 1272/2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZD6244</td>
<td>606143-52-6</td>
<td>100</td>
<td>STOT RE 2 (H373)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1 (H318)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Sens. 1 (H317)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Repr. 2 (H361f)</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16
## 4. FIRST AID MEASURES

<table>
<thead>
<tr>
<th>General advice</th>
<th>Immediate medical attention is required. If symptoms persist, call a physician.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediate medical attention is required.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Immediate medical attention is required. May cause an allergic skin reaction. If symptoms persist, call a physician.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Immediate medical attention is required. Move to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If not breathing, give artificial respiration. Administer oxygen if breathing is difficult and you are trained.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Rinse mouth. Immediate medical attention is required. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed to do so by medical personnel.</td>
</tr>
<tr>
<td>Notes to physician</td>
<td>May cause sensitization of susceptible persons. Treat symptomatically.</td>
</tr>
<tr>
<td>Protection of first-aiders</td>
<td>Use personal protective equipment. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.</td>
</tr>
</tbody>
</table>

## 5. FIRE-FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Flammable properties</th>
<th>Not flammable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>Suitable extinguishing media</td>
<td>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.</td>
</tr>
<tr>
<td>Explosion Data</td>
<td>None.</td>
</tr>
<tr>
<td>Sensitivity to Mechanical Impact</td>
<td>None.</td>
</tr>
<tr>
<td>Sensitivity to Static Discharge</td>
<td>None.</td>
</tr>
<tr>
<td>Specific hazards arising from the chemical</td>
<td>Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact.</td>
</tr>
<tr>
<td>Protective equipment and precautions for firefighters</td>
<td>Wear self contained breathing apparatus for fire fighting if necessary.</td>
</tr>
</tbody>
</table>
6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Avoid dust formation. Avoid inhalation of dust. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Avoid release into the environment.

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up.

Other information
See Section 12 for additional information. Refer to protective measures listed in sections 7 and 8.

7. HANDLING AND STORAGE

Advice on safe handling
Avoid dust formation. Do not breathe vapors/dust/mist. Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Wear personal protective equipment. Do not breathe vapors or spray mist. Use only in area provided with appropriate exhaust ventilation.

Technical measures/Storage conditions
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Store at +4°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Engineering measures
Showers
Eyewash stations
Ventilation systems

Personal protective equipment
Eye/face protection
Tightly fitting safety goggles. Face-shield.
Skin and body protection
No special protective equipment required.
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
When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>No information available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>No information available</td>
</tr>
<tr>
<td>Physical State @20°C</td>
<td>No information available</td>
</tr>
<tr>
<td>Hazardous polymerization</td>
<td>None known based on information supplied.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Stable under recommended storage conditions.</td>
</tr>
<tr>
<td>Incompatible products</td>
<td>None known based on information supplied.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>None known based on information supplied.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon dioxide. Carbon monoxide (CO). Nitrogen oxides (NOx).</td>
</tr>
<tr>
<td>Hazardous polymerization</td>
<td>Hazardous polymerization does not occur.</td>
</tr>
</tbody>
</table>
11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product Information
AZD 6244 - Toxicity Data: Oral LD50 (rat): > 300 mg/kg; Corrosive to skin, eyes and/or respiratory tract. May cause sensitization of susceptible persons.

Inhalation
Corrosive by inhalation Causes burns Material may be irritating to the mucous membranes and upper respiratory tract. May be harmful by inhalation.

Eye contact
Causes burns Corrosive to eyes May cause irritation

Skin contact
Corrosive Causes burns May be absorbed through the skin in harmful amounts May cause irritation

Ingestion
Causes burns May be harmful if swallowed

Chronic toxicity

Chronic toxicity
Repeated contact may cause allergic reactions in very susceptible persons Avoid repeated exposure

Sensitization
As a precaution the product should be treated as a sensitizer.

Reproductive toxicity
Product is or contains a chemical which is a known or suspected reproductive hazard

Developmental Toxicity
Contains ingredients that have suspected developmental hazards Possible risk of harm to the unborn child May cause birth defects

Target Organ Effects
None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging
Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT
Not dangerous goods

IATA
Not dangerous goods
15. REGULATORY INFORMATION

U.S. Federal Regulations

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

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>yes</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>no</td>
</tr>
</tbody>
</table>

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.

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

International Regulations

WHMIS Note: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.
16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H373 - May cause damage to organs through prolonged or repeated exposure
H318 - Causes serious eye damage
H317 - May cause an allergic skin reaction
H361f - Suspected of damaging fertility

Hazard statements
H318 - Causes serious eye damage
H317 - May cause an allergic skin reaction
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure

Revision Date 17-May-2017
Revision Note No information available.

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 MSDS