1 Identification

- Product identifier
- Trade name: Diisobutyl Phthalate
- Part number: N-1087, N-1087-1GM
- CAS Number: 84-69-5
- EC number: 201-553-2
- Index number: 607-623-00-2
- Application of the substance / the mixture: Reagents and Standards for Analytical Chemical Laboratory Use

Details of the supplier of the safety data sheet

- Manufacturer/Supplier:
  Agilent Technologies, Inc.
  5301 Stevens Creek Blvd.
  Santa Clara, CA  95051  USA

- Information department:
  Telephone: 800-227-9770
  e-mail: pdl-msds_author@agilent.com
- Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

- Classification of the substance or mixture
  GHS08 Health hazard
  Repr. 1B  H360  May damage fertility or the unborn child.

- Label elements
  - GHS label elements: The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms

  GHS08

- Signal word: Danger

- Hazard-determining components of labeling:
  diisobutyl phthalate

- Hazard statements
  May damage fertility or the unborn child.

- Precautionary statements
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  Wear protective gloves/protective clothing/eye protection/face protection.
  IF exposed or concerned: Get medical advice/attention.

(Contd. on page 2)
Trade name: Diisobutyl Phthalate

Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 1
    - Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  - Health = 0
  - Fire = 1
  - Reactivity = 0

- **Other hazards**
  - Results of PBT and vPvB assessment
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
  - 84-69-5 diisobutyl phthalate
- **Identification number(s)**
  - EC number: 201-553-2
  - Index number: 607-623-00-2

### 4 First-aid measures

- **Description of first aid measures**
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:** Generally the product does not irritate the skin.
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed**
    - No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

(Contd. on page 3)
Trade name: Diisobutyl Phthalate

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
- Protective Action Criteria for Chemicals
  - PAC-1:
    Substance is not listed.
  - PAC-2:
    Substance is not listed.
  - PAC-3:
    Substance is not listed.

7 Handling and storage

- Handling:
  - Precautions for safe handling: Open and handle receptacle with care.
  - Information about protection against explosions and fires: Keep respiratory protective device available.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Wash hands before breaks and at the end of work.
    Store protective clothing separately.
  - Breathing equipment:
    When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
    Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved
Protection of hands:
Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

Material of gloves
For normal use: nitrile rubber, 11-13 mil thickness
For direct contact with the chemical: butyl rubber, 12-15 mil thickness
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material
For normal use: nitrile rubber: 1 hour
For direct contact with the chemical: butyl rubber: >4 hours
Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance:
Form: Liquid
Color: Colorless
Odor: Characteristic
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition
Melting point/Melting range: -64 °C (-83.2 °F)
Boiling point/Boiling range: 195 °C (383 °F)

Flash point: 195 °C (383 °F)
Flammability (solid, gaseous): Not applicable.
Decomposition temperature: Not determined.
Auto igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
Lower: Not determined.
Upper: Not determined.

Vapor pressure at 20 °C (68 °F): 0.084 hPa (0.1 mm Hg)
Density at 20 °C (68 °F): 1.049 g/cm³ (8.75391 lbs/gal)
Relative density: Not determined.
Vapor density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with Water: Not miscible or difficult to mix.
Trade name: Diisobutyl Phthalate

| · Partition coefficient (n-octanol/water): Not determined. |
| · Viscosity: |
| Dynamic: Not determined. |
| Kinematic: Not determined. |
| VOC content: 0.00 % |
| 0.0 g/l / 0.00 lb/gal |
| Solids content: 0.0 % |
| · Other information No further relevant information available. |

10 Stability and reactivity

· Reactivity No further relevant information available.
· Chemical stability
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Possibility of hazardous reactions No dangerous reactions known.
· Conditions to avoid No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects
· Acute toxicity:
· LD/LC50 values that are relevant for classification:

84-69-5 diisobutyl phthalate

Oral [LD50] 10,392 mg/kg (rat)

· Primary irritant effect:
· on the skin: No irritant effect.
· on the eye: No irritating effect.
· Sensitization: No sensitizing effects known.
· Additional toxicological information:
· Carcinogenic categories

· IARC (International Agency for Research on Cancer) Substance is not listed.
· NTP (National Toxicology Program) Substance is not listed.
· OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.
12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:**
    - Diisobutyl phthalate
    - LC50 (96h) - for fish: 0.73 mg/L/96h (Pimephales promelas (fathead minnow))

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:**
    - Water hazard class 2 (Assessment by list): hazardous for water
    - Do not allow product to reach ground water, water course or sewage system.
    - Danger to drinking water if even small quantities leak into the ground.
  - **Results of PBT and vPvB assessment**
    - PBT: Not applicable.
    - vPvB: Not applicable.
    - **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
  - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number** not regulated
- **DOT** not regulated
- **IMDG, IATA** UN3082

- **UN proper shipping name**
- **DOT** not regulated
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
### Transport hazard class(es)
- **DOT**
- **Class** not regulated

### IMDG, IATA
- **Class** 9 Miscellaneous dangerous substances and articles
- **Label** 9

### Packing group
- **DOT** not regulated
- **IMDG, IATA** III

### Environmental hazards:
Product contains environmentally hazardous substances: diisobutyl phthalate

### Marine pollutant:
Symbol (fish and tree)

### Special marking (IATA):
Symbol (fish and tree)

### Special precautions for user
Warning: Miscellaneous dangerous substances and articles

### Danger code (Kemler):
90

### EMS Number:
F-A,S-F

### Stowage Category
A

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

### Transport/Additional information:

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<th>Limited quantities (LQ)</th>
<th>5L</th>
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<td>Excepted quantities (EQ)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Maximum net quantity per inner packaging: 30 ml</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum net quantity per outer packaging: 1000 ml</td>
</tr>
</tbody>
</table>

### UN "Model Regulation":
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., 9, III

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
  - **Section 355 (extremely hazardous substances):** Substance is not listed.
  - **Section 313 (Specific toxic chemical listings):** Substance is not listed.
  - **TSCA (Toxic Substances Control Act):** Substance is listed.
Trade name: Diisobutyl Phthalate

- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - Substance is not listed.
  - **Chemicals known to cause reproductive toxicity for females:**
    - Substance is not listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    - Substance is not listed.
  - **Chemicals known to cause developmental toxicity:**
    - Substance is not listed.

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    - Substance is not listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    - Substance is not listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - Substance is not listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

- **Date of preparation / last revision** 10/13/2018 / 1
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBTo: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Repr. 1B: Reproductive toxicity – Category 1B