

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1

1. Identification

1.1 Product identifier

Product name: DNB Crash Buffer/DNB Loading Reagent 1

Product number: 530-002112-00, 530-002168-00, 530-002170-00, 1000004692, 530-002415-00,
530-003295-00, 530-003292-00

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended restrictions: For research users only.

1.3. Details of the supplier of the safety data sheet

| | |
|----------------|---|
| Company | Complete Genomics, Inc. |
| Address | 2904 Orchard Parkway San Jose, CA 95134 |
| Web | www.completegenomics.com |
| E-mail | US-CustomerService@completegenomics.com |
| TEL. | +1 (888) 811-9644 |

1.4. Emergency telephone

| | |
|-------------------------------|--|
| Emergency phone number | 800-424-9300 CHEMTREC(USA) +1-703-527-3887 CHEMTREC(International) 24 Hours/day; 7 Days/week |
|-------------------------------|--|

2. Hazard(s) identification

2.1 Classification of the substance or mixture

| | |
|--|------------|
| Flammable liquids | Category 2 |
| Serious eye damage/eye irritation | Category 2 |
| Specific target organ toxicity – single exposure | Category 3 |

2.2 Label elements

Labelling

Hazard pictograms:



Signal word: Danger

Hazard statements:

H225: Highly flammable liquid and vapour.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



Precautionary statements:

Prevention:

P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233:Keep container tightly closed.

P240:Ground and bond container and receiving equipment.

P241:Use explosion-proof [electrical/ventilating/ lighting/...] equipment.

P242:Use non-sparking tools.

P280:Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P303+P361+P353:IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].

P370+P378:In case of fire: Use Dry chemical, carbon dioxide or alcohol-resistant foam to extinguish.

Storage:

P403+P235:Store in a wellventilated place. Keep cool.

Disposal:

P501:Dispose of contents/container in accordance with local/regional/national/ international regulations.

2.3 Hazards classified under paragraph (d)(1)(ii) of § 1910.12000

A change in chemical's physical form

No information available

Chemical reaction products associated with known or reasonably anticipated uses or applications

No information available

2.4 Other hazards which do not result in classification

Other hazards which do not result in classification :

No information available

2.5 Unknown acute toxicity (GHS US)

No additional information available.

3. Composition/information on ingredients

Substances

Not applicable.

3.2. Mixtures

This product contains the following hazards within the meaning of the relevant state and federal Hazardous substances regulations.

| ingredient | CAS-No. | EC No. | Concentration (% w/w) | Classification |
|------------|---------|-----------|-----------------------|---|
| 2-Propanol | 67-63-0 | 200-661-7 | 58%~60% | Flammable liquids Category 2 H225 Serious eye damage/eye |

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



| | | | | |
|----------|------------|-----------|---------|--|
| | | | | irritation Category 2 H319 Specific target organ toxicity – single Exposure Category 3 H336 |
| Water | 7732-18-5 | 231-791-2 | 30%~33% | Not- Classified |
| PEG 4000 | 25322-68-3 | 500-038-2 | 9%~10% | Not- Classified |

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

*PBT/vPvB - PBT-substance or vPvB-substance.

The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1 Description of first aid measures

| | |
|----------------------------|---|
| General advice | Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance. |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable. |
| Skin contact | Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel uncomfortable. |
| Ingestion | Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately. |
| Inhalation | Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately. |
| Protecting of first-aiders | Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination. |

4.2 Most important symptoms and effects, both acute and delayed

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

4.3 Indication of any immediate medical attention and special treatment needed

- 1.Treat symptomatically.
- 2.Symptoms may be delayed.

Section 5. Fire-fighting measures

5.1. . Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

5.2. Special hazards arising from the substance or mixture

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



Hazardous decomposition: No hazardous decomposition data available.

Keep away from heat, sparks, open flames, and other ignition sources - No smoking.

Keep container tightly closed.

Keep cool.

Ground, bond container and receiving equipment.

Use explosion-proof electrical, ventilating, light, equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust, fume, gas, mist, vapors, spray.

5.3. Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. 128

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

1. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
2. Do not touch or walk through spilled material.
3. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
4. Ensure adequate ventilation. Remove all sources of ignition.
5. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
6. Use personal protective equipment. Avoid breathing vapours, mist or gas.

6.2 Environmental precautions

1. Prevent product from entering drains.
2. Prevent further leakage or spillage if safe to do so.
3. If there is pollution in the sewer or waterway, please report to the local authorities.

6.3 Methods and material for containment and cleaning up

a lot of leaks:

Use an inert absorbent material such as sand or soil to absorb spillage.

Collect spilled product and place it in a sealable container or bucket for disposal.

Clean contaminated areas and objects with plenty of water and detergent.

Small amount of leakage:

Absorbing materials such as sand or soil absorb spillage.

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



Collect spilled product and place it in a sealable container for disposal.

Clean contaminated areas and objects with water and detergent

6.4 Reference to other sections

Treat recovered material as described in the section "Disposal considerations".

Section 7. Handling and storage

7.1 Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Check section 2.2 (GHS Label Elements) for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials: No available information

Check section 2.2 (GHS Label Elements) for further details. - [Storage]:

7.3. Specific end use(s)

No available information

Section 8. Exposure controls / personal protection

8.1 Control parameters

| CAS No. | Ingredient | Source | Value |
|--------------|---------------------|--------|--|
| 0000067-63-0 | Isopropyl Alcohol | OSHA | TWA 400 ppm (980 mg/m ³) STEL 500 ppm |
| | | ACGIH | TWA: 200 ppm STEL: 400 ppm |
| | | NIOSH | TWA 400 ppm (980 mg/m ³) STEL: 500 ppm (1225 mg/m ³) |
| 0025322-68-3 | Polyethylene glycol | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |

8.2 Appropriate engineering controls

Appropriate engineering controls
Environmental exposure controls

Ensure good ventilation of the work station.
Avoid release to the environment.

8.3 Personal protective equipment

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



| | |
|---------------------------|---|
| Respiratory protection: | In the case of vapor formation use a respirator with an ap-proved filter. |
| Eye protection: | Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. |
| Skin and body protection: | Impervious clothing Choose body protection according to the amount and con-centration of the dangerous substance at the work place. |
| Hand protection: | Protective gloves Use specific protective gloves for specific locations. |

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---------------------------------------|-------------------------|
| Appearance and shape: | Clear, colorless liquid |
| odor: | Odorless |
| pH value: | no data |
| Melting point / freezing point: | no data |
| Boiling point: | no data |
| Flash point: | < 23°C |
| Upper explosion limit: | no data |
| Lower explosion limit: | no data |
| Vapor Pressure: | no data |
| Vapor density | >1 |
| density | ≈1 |
| Solubility | Soluble in water |
| N-octanol/water partition coefficient | No data |
| Auto-ignition temperature | No data |
| Decomposition temperature | No data |

9.2 Other information

None data.

Section 10. Stability and reactivity

10.1 Reactivity

Contact with incompatible substances can cause decomposition or other chemical reactions.

10.2 Chemical Stability

Stable under the recommended storage conditions.

10.3 Possibility of hazardous reactions

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



No hazardous reactions when stored and handled within normal conditions of use.

10.4. Conditions to avoid

Avoid extremes of temperature and direct sunlight.

Avoid contact with incompatible materials.

10.5 Incompatible materials

Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.

10.6 Hazardous decomposition products

Oxides of carbon and nitrogen, smoke and other toxic fumes

Section 11. Toxicological information

11.1 Acute toxicity

| Ingredient | Oral LD50,mg/kg | Inhalation Gas LC50, ppm | Inhalation Vapor LC50,mg/L/4hr |
|------------|-----------------|-----------------------------|-----------------------------------|
| 2-Propanol | 5050 | 12800 | No data available |
| PEG 4000 | >2000 | >2000 | No data availabl |

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Serious eye damage/eye irritation Category 2, Causes serious eye irritation.

Respiratory or skin allergies

Based on available data, the classification criteria are not met

Germ cell mutagenicity

Based on available data, the classification criteria are not met

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Based on available data, the classification criteria are not met

Specific target organ toxicity (one exposure)

Specific target organ toxicity – single exposure Category 3, May cause drowsiness or dizziness.

Specific target organ system toxicity (repeated exposure)

Based on available data, the classification criteria are not met

Aspiration hazard

Based on available data, the classification criteria are not met

Symptoms/effects

No data

Section 12. Ecological information

12.1 Ecotoxicity

| Ingredient | 96 hr LC50 fish, mg/L | 48 hr EC50 crustacea,mg/L | ErC50 algae,mg/L |
|-------------|--------------------------|------------------------------|-------------------|
| 2-Propanol: | 4200 | 1400 | No data available |

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

No available information

12.4. Mobility in soil

No available information

12.5. Other adverse effects

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1






No available information

Section 13. Disposal considerations

13.1. Waste treatment methods

| | |
|--------------------------|--|
| Waste chemicals | Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal. |
| Contaminated packaging | Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible. |
| Disposal recommendations | Refer to section waste chemicals and contaminated packaging. |

Section 14. Transport information

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|--|---|
| 14.1. UN number or ID number | | | | |
| UN 1993 | UN 1993 | UN 1993 | UN 1993 | UN 1993 |
| 14.2. UN proper shipping name | | | | |
| Flammable Liquids, N.O.S.(60% 2- Propanol Liquids) | Flammable Liquids, N.O.S.(60% 2- Propanol Liquids) | Flammable Liquids, N.O.S.(60% 2- Propanol Liquids) | Flammable Liquids, N.O.S.(60% 2- Propanol Liquids) | Flammable Liquids, N.O.S.(60% 2- Propanol Liquids) |
| 14.3. Transport hazard class(es) | | | | |
| 3 | 3 | 3 | 3 | 3 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| II | II | II | II | II |
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment: No | Dangerous for the environment: No Marine pollutant: No | Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary information available | | | | |

14.6. Special precautions for user

Methods of packing

Metal drum, removable head. Ampoule outside the ordinary wooden box. Threaded glass, metal cover pressure bottles, plastic bottles or metal (cans) outside the ordinary wooden box etc. Packaging as recommended by manufacturer.

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



| Precautions for transport

Shipment of the goods vehicle exhaust pipe must be equipped with fire retardant devices, prohibit using mechanical equipment and toolsof which easy to produce sparks . Transit should be anti-exposure, anti-rain, anti-high temperature. Transportation used tank (tank) cars should be grounded chain, tank can be installed to reduce the partition hole static electricity shocks. Strictly prohibited shipping or transportation withoxidants, acids, food and food additives etc. When bulk transport, Prohibit the use of cement or wooden boats. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

Section 15. Regulatory information

1515.1Regulatory Overview :

The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

15.2Toxic Substance Control Act (TSCA):

All components of this material are either listed or exempt from listing on the TSCA Inventory.

15.3 US EPA Tier II Hazards

| | |
|------------------------------------|-----|
| Fire: | No |
| Sudden Release of Pressure: | No |
| Reactive: | No |
| Immediate (Acute): | Yes |
| Delayed (Chronic): | No |

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Isopropyl Alcohol.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Abbreviations and acronyms

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European INventory of Existing Commercial chemical Substances/European List of Notified Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korea Existing Chemicals List
PICCS - The Philippine Inventory of Chemicals and Chemical Substances
AICS - The Australian Inventory of Chemical Substances
LD50 - Median lethal dose i.e. Lethal Dose, 50%
LC50 - Lethal concentration 50%
UNRTDG - UN Recommendations on the Transport of Dangerous Goods
IMDG - International Maritime Dangerous Goods
IATA - The International Air Transport Association (The latest edition).

Key literature references and sources for data

ECHA: <http://echa.europa.eu/>
IFA GESTIS:
[http://gestis-en.itrust.de/nxt/gateway.dll?f=templates\\$fn=default.htm\\$vid=gestiseng:sdbeng](http://gestis-en.itrust.de/nxt/gateway.dll?f=templates$fn=default.htm$vid=gestiseng:sdbeng)
eChemPortal: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
HSDB: <http://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
ICSC: <http://www.ilo.org/dyn/icsc/showcard.home>
NITE-CHRIP: http://www.nite.go.jp/en/chem/chrip/chrip_search/srhInput

Full text of H-Statements:

NO data.

Training advice

NO data.

Further information

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

SAFETY DATA SHEET

DNB Crash Buffer/ DNB Loading Reagent 1



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.

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