1 Identification

- Product identifier
  - Trade name: Custom Standard
  - Part number: CUS-8384
  - Application of the substance / the mixture Laboratory chemicals

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier:
    ULTRA Scientific, Inc.
    250 Smith Street
    North Kingstown, RI 02852
    USA

- Information department:
  - Telephone: (401) 294-9400
  - Fax: (401) 295-2300
  - E-mail: regulatory@ultrasci.com

- Emergency telephone number:
  - US: +1-800-424-9300
  - Outside US: +1-703-527-3887

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS02 Flame
    Flam. Liq. 2 H225 Highly flammable liquid and vapor.
  - GHS06 Skull and crossbones
    Acute Tox. 3 H331 Toxic if inhaled.
  - GHS08 Health hazard
    Repr. 1 H360 May damage fertility or the unborn child.
    STOT SE 1 H370 Causes damage to organs.
    STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

- Label elements
  - GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms
    GHS02 GHS06 GHS08

- Signal word Danger

- Hazard-determining components of labeling:
  - methanol
  - 2-methoxyethanol

(Contd. on page 2)
Trade name: Custom Standard

2,2'-oxybisethanol
2-ethoxyethanol

- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Toxic if inhaled.
  - May damage fertility or the unborn child.
  - Causes damage to organs.
  - May cause damage to organs through prolonged or repeated exposure.

- **Precautionary statements**
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - Ground/bond container and receiving equipment.
  - Use explosion-proof electrical/ventilating/lighting/equipment.
  - Use only non-sparking tools.
  - Take precautionary measures against static discharge.
  - Do not breathe dust/fume/gas/mist/vapors/spray.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Use only outdoors or in a well-ventilated area.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - IF exposed or concerned: Get medical advice/attention.
  - Get medical advice/attention if you feel unwell.
  - Specific treatment (see on this label).
  - In case of fire: Use for extinction: CO2, powder or water spray.
  - Store in a well-ventilated place. Keep container tightly closed.
  - Store in a well-ventilated place. Keep cool.
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 1
    - Fire = 3
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - HEALTH
      - Health = *1
    - FIRE
      - Fire = 3
    - REACTIVITY
      - Reactivity = 0

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

---

**3 Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.
### Dangerous components:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1</td>
<td>methanol</td>
<td>92.415%</td>
</tr>
<tr>
<td>111-46-6</td>
<td>2,2'-oxybisethanol</td>
<td>1.264%</td>
</tr>
<tr>
<td>57-55-6</td>
<td>Methyl glycol</td>
<td>1.264%</td>
</tr>
<tr>
<td>112-27-6</td>
<td>triethylene glycol</td>
<td>1.264%</td>
</tr>
<tr>
<td>109-86-4</td>
<td>2-methoxyethanol</td>
<td>1.264%</td>
</tr>
<tr>
<td>110-80-5</td>
<td>2-ethoxyethanol</td>
<td>1.264%</td>
</tr>
<tr>
<td>107-21-1</td>
<td>ethanediol</td>
<td>1.264%</td>
</tr>
</tbody>
</table>

### First-aid measures

**Description of first aid measures**

**General information:**
Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Remove breathing apparatus only after contaminated clothing have been completely removed. In case of irregular breathing or respiratory arrest provide artificial respiration.

**After inhalation:**
Supply fresh air or oxygen; call for doctor. In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**
Immediately wash with water and soap and rinse thoroughly.

**After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.

**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.

### Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.

**Advice for firefighters**

**Protective equipment:** Mouth respiratory protective device.

### Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device. Wear protective equipment. Keep unprotected persons away.

**Environmental precautions:**
Dilute with plenty of water. 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).
46.0.5 Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

- **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:**
  - 67-56-1 methanol 530 ppm
  - 111-46-6 2,2'-oxybisethanol 6.9 ppm
  - 57-55-6 Methyl glycol 30 mg/m³
  - 112-27-6 triethylene glycol 130 mg/m³
  - 109-86-4 2-methoxyethanol 0.3 ppm
  - 110-80-5 2-ethoxyethanol 15 ppm
  - 107-21-1 ethanediol 30 ppm

  **PAC-2:**
  - 67-56-1 methanol 2,100 ppm
  - 111-46-6 2,2'-oxybisethanol 140 ppm
  - 57-55-6 Methyl glycol 1,300 mg/m³
  - 112-27-6 triethylene glycol 1,400 mg/m³
  - 109-86-4 2-methoxyethanol 14 ppm
  - 110-80-5 2-ethoxyethanol 1,000 ppm
  - 107-21-1 ethanediol 150 ppm

  **PAC-3:**
  - 67-56-1 methanol 7200* ppm
  - 111-46-6 2,2'-oxybisethanol 860 ppm
  - 57-55-6 Methyl glycol 7,900 mg/m³
  - 112-27-6 triethylene glycol 4,400 mg/m³
  - 109-86-4 2-methoxyethanol 2000* ppm
  - 110-80-5 2-ethoxyethanol 6000* ppm
  - 107-21-1 ethanediol 900 ppm

## 7 Handling and storage

- **Handling:**
  - **Precautions for safe handling**
    - Ensure good ventilation/exhaustion at the workplace.
    - Open and handle receptacle with care.
    - Prevent formation of aerosols.
  - **Information about protection against explosions and fires:**
    - Keep ignition sources away - Do not smoke.
    - Protect against electrostatic charges.
    - Keep respiratory protective device available.
  - **Conditions for safe storage, including any incompatibilities**

- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
Trade name: Custom Standard

- Information about storage in one common storage facility: Not required.
- Further information about storage conditions:
  Keep receptacle tightly sealed.
  Store in cool, dry conditions in well sealed receptacles.
- 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:
  The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
  At this time, the remaining constituent has no known exposure limits.

<table>
<thead>
<tr>
<th>67-56-1 methanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL Long-term value: 260 mg/m³, 200 ppm</td>
</tr>
<tr>
<td>REL Short-term value: 325 mg/m³, 250 ppm</td>
</tr>
<tr>
<td>Long-term value: 260 mg/m³, 200 ppm Skin</td>
</tr>
<tr>
<td>TLV Short-term value: 328 mg/m³, 250 ppm</td>
</tr>
<tr>
<td>Long-term value: 262 mg/m³, 200 ppm Skin; BEI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>111-46-6 2,2'-oxybisethanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEEL Long-term value: 10 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>57-55-6 Methyl glycol</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEEL Long-term value: 10 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>109-86-4 2-methoxyethanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL Long-term value: 80 mg/m³, 25 ppm Skin</td>
</tr>
<tr>
<td>REL Long-term value: 0.3 mg/m³, 0.1 ppm Skin</td>
</tr>
<tr>
<td>TLV Long-term value: 0.3 mg/m³, 0.1 ppm Skin; BEI</td>
</tr>
<tr>
<td>WEEL Skin; BEI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>110-80-5 2-ethoxyethanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL Long-term value: 740 mg/m³, 200 ppm Skin</td>
</tr>
<tr>
<td>REL Long-term value: 1.8 mg/m³, 0.5 ppm Skin</td>
</tr>
<tr>
<td>TLV Long-term value: 18 mg/m³, 5 ppm Skin; BEI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>107-21-1 ethanediol</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV Short-term value: 10** mg/m³, 50* ppm</td>
</tr>
<tr>
<td>Long-term value: 25* ppm</td>
</tr>
<tr>
<td>*vapor fraction:**inh. fraction, aerosol only</td>
</tr>
</tbody>
</table>

(Contd. on page 6)
Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>BEI</th>
<th>Medium</th>
<th>Time</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td>15 mg/L</td>
<td>urine</td>
<td>end of shift</td>
<td>Methanol (background, nonspecific)</td>
</tr>
<tr>
<td>109-86-4 2-methoxyethanol</td>
<td>1 mg/g creatinine</td>
<td>urine</td>
<td>end of shift at end of workweek</td>
<td>2-Methoxyacetic acid</td>
</tr>
<tr>
<td>110-80-5 2-ethoxyethanol</td>
<td>100 mg/g creatinine</td>
<td>urine</td>
<td>end of shift at end of workweek</td>
<td>2-Ethoxyacetic acid</td>
</tr>
</tbody>
</table>

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.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

Breathing equipment:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

Protective gloves

Material of gloves
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:
Tightly sealed goggles
### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - **Form:** Fluid
    - **Color:** According to product specification
  - **Odor:** Characteristic
  - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.
- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** 64.7 °C (148.5 °F)
- **Flash point:** 9 °C (48.2 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 455 °C (851 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
  - **Lower:** 5.5 Vol %
  - **Upper:** 44 Vol %
- **Vapor pressure at 20 °C (68 °F):** 100 hPa (75 mm Hg)
- **Density at 20 °C (68 °F):** 0.81847 g/cm³ (6.83013 lbs/gal)
  - **Relative density** Not determined.
  - **Vapor density** Not determined.
  - **Evaporation rate** Not determined.
- **Solubility in / Miscibility with Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - **Dynamic:** Not determined.
  - **Kinematic:** Not determined.
- **Solvent content:**
  - **Organic solvents:** 98.7 %
  - **VOC content:** 98.74 %
    - 808.1 g/l / 6.74 lb/gl
- **Solids content:** 0.0 %
- **Other information** No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
46.0.5

- 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:
      ATE (Acute Toxicity Estimate)
      | Route     | LD50 Dose (mg/kg) | LC50 Dose (mg/L) |
      |------------|-------------------|------------------|
      | Oral       | >53,474           | >3.23            |
      | Dermal     | 98,504            |                  |
      | Inhalative | >3.23             |                  |

67-56-1 methanol
- Oral LD50 5,628 mg/kg (rat)
- Dermal LD50 15,800 mg/kg (rabbit)

111-46-6 2,2'-oxybisethanol
- Oral LD50 12,565 mg/kg (rat)
- Dermal LD50 11,890 mg/kg (rabbit)

57-55-6 Methyl glycol
- Oral LD50 20,800 mg/kg (rat)
- Dermal LD50 20,800 mg/kg (rabbit)

112-27-6 triethylene glycol
- Oral LD50 17,000 mg/kg (rat)

109-86-4 2-methoxyethanol
- Oral LD50 2,460 mg/kg (rat)
- Dermal LD50 2,000 mg/kg (rat)
- Inhalative LC50/4 h >12.4 mg/L (rat)

110-80-5 2-ethoxyethanol
- Oral LD50 1,746 mg/kg (rat)
- Dermal LD50 3,300 mg/kg (rabbit)
- Inhalative LC50/4 h 15.2 mg/L (rat)

107-21-1 ethanediol
- Oral LD50 2,000 mg/kg (rat)
- Dermal LD50 9,530 mg/kg (rabbit)

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.

(Contd. on page 9)
Trade name: Custom Standard

- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Toxic

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - 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 1 (Self-assessment): slightly hazardous for water
      Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - 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.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA: UN1230
- UN proper shipping name
  - DOT: Methanol solution
  - IMDG, IATA: METHANOL solution

(Contd. on page 10)
Trade name: Custom Standard

- Transport hazard class(es)
  - DOT
  - IMDG
  - IATA

- Class
  - DOT, IMDG, IATA 3 Flammable liquids
  - Label 3, 6.1

- IMDG

- Class
  - Label 3 Flammable liquids

- IATA

- Class
  - Label 3 Flammable liquids

- Packing group
  - DOT, IMDG, IATA II

- Environmental hazards: Not applicable.

- Special precautions for user Warning: Flammable liquids
  - Danger code (Kemler): 336
  - EMS Number: F-E,S-D
  - Stowage Category B
  - Stowage Code SW2 Clear of living quarters.

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

- Transport/Additional information:

  - DOT
    - Quantity limitations On passenger aircraft/rail: 1 L
    - On cargo aircraft only: 60 L

  - IMDG
    - Limited quantities (LQ) 1L
    - Excepted quantities (EQ) Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml

  - UN "Model Regulation": UN 1230 METHANOL SOLUTION, 3 (6.1), II

(Contd. on page 11)
### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- **Sara**
  - **Section 355 (extremely hazardous substances):**
    None of the ingredients is listed.
  - **Section 313 (Specific toxic chemical listings):**
    | CAS Number | Chemical Name        |
    |-------------|----------------------|
    | 67-56-1     | methanol             |
    | 109-86-4    | 2-methoxyethanol     |
    | 110-80-5    | 2-ethoxyethanol      |
    | 107-21-1    | ethanediol           |
  - **TSCA (Toxic Substances Control Act):**
    All ingredients are listed.
- **Proposition 65**
  - **Chemicals known to cause cancer:**
    None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for females:**
    None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    | CAS Number | Chemical Name        |
    |-------------|----------------------|
    | 109-86-4    | 2-methoxyethanol     |
    | 110-80-5    | 2-ethoxyethanol      |
  - **Chemicals known to cause developmental toxicity:**
    | CAS Number | Chemical Name        |
    |-------------|----------------------|
    | 67-56-1     | methanol             |
    | 109-86-4    | 2-methoxyethanol     |
    | 110-80-5    | 2-ethoxyethanol      |
    | 107-21-1    | ethanediol           |
- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    | CAS Number | Chemical Name | TLV |
    |-------------|---------------|-----|
    | 107-21-1    | ethanediol    | A4  |
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    None of the ingredients is listed.
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**
  - GHS02
  - GHS06
  - GHS08
- **Signal word** Danger
- **Hazard-determining components of labeling:**
  - methanol
  - 2-methoxyethanol
Trade name: Custom Standard

2,2’-oxybisethanol
2-ethoxyethanol

**Hazard statements**
Highly flammable liquid and vapor.
Toxic if inhaled.
May damage fertility or the unborn child.
Causes damage to organs.
May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
Specific treatment (see on this label).
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Store in a cool place.
Store in a dry place.
Dispose of contents/container in accordance with local/regional/national/international regulations.

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Date of preparation / last revision** 03/15/2018 / -

**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
ELINCS: European List of Notified 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
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
Trade name: Custom Standard

(Contd. of page 12)

TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Repr. 1: Reproductive toxicity – Category 1
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2