

**Safety Data Sheet**  
acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

<b>1 Identification</b>	
<b>· Product identifier</b>	
<b>· Trade name:</b> <u>Millennium Single Ply Primer</u>	
<b>· Article number:</b> 731136	
<b>· Relevant identified uses of the substance or mixture.</b> Primer	
<b>· Application of the substance / the mixture</b> Priming	
<b>· Details of the supplier of the safety data sheet</b>	
<b>· Manufacturer/Supplier:</b>	Royal Adhesives & Sealants, LLC
	4401 Page Avenue, P. O. Box 457
	Michigan Center, MI 49254
	Information Phone Number: 517-764-0334
<b>· Information department:</b> Environment protection department.	
<b>· Emergency telephone number:</b>	ChemTrec: Day or Night within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

<b>2 Hazard(s) identification</b>	
<b>· Classification of the substance or mixture</b>	
 GHS02 Flame	Flam. Liq. 2 H225 Highly flammable liquid and vapor.
 GHS08 Health hazard	Carc. 1B H350 May cause cancer. Repr. 2 H361 Suspected of damaging fertility or the unborn child. STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
 GHS07	Skin Irrit. 2 H315 Causes skin irritation. STOT SE 3 H336 May cause drowsiness or dizziness.
<b>· Label elements</b>	
<b>· GHS label elements</b>	The product is classified and labeled according to the Globally Harmonized System (GHS).
	(Contd. on page 2)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name: Millennium Single Ply Primer**

(Contd. of page 1)

**· Hazard pictograms**



GHS02



GHS07



GHS08

**· Signal word Danger**

**· Hazard statements**

Highly flammable liquid and vapor.

Causes skin irritation.

May cause cancer.

Suspected of damaging fertility or the unborn child.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

May be fatal if swallowed and enters airways.

**· Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Do not breathe dust/fume/gas/mist/vapors/spray.

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

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

**IF SWALLOWED:** Immediately call a POISON CENTER/doctor.

**If on skin (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

**IF exposed or concerned:** Get medical advice/attention.

**If skin irritation occurs:** Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Do NOT induce vomiting.

**In case of fire:** Use for extinction: CO<sub>2</sub>, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

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

**· Classification system:**

**· NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 0

(Contd. on page 3)

USA

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name: Millennium Single Ply Primer**

(Contd. of page 2)

**· HMIS-ratings (scale 0 - 4)**

HEALTH	2
FIRE	3
PHYSICAL HAZARD	0

Health = \*2

Fire = 3

Physical Hazard = 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**

**· Hazardous components:**

64742-89-8	Solvent naphtha (petroleum), light aliph.(VM&P)	50-100%
108-88-3	toluene	25-50%
	Isobutylene Copolymer	2.5-10%
27193-28-8	(1,1,3,3-tetramethylbutyl)phenol	≤2.5%

**· Additional information:**

All concentrations are in percent by weight unless the ingredient is a gas. Gas concentrations are in percent by volume. Any pigments or fillers in this product which may be considered "Hazardous" are potentially hazardous only if inhaled as an airborne dust. Exposure by these ingredients as used in sealants, putties, bedding compounds and non-sprayable products is highly unlikely. For the wording of the listed risk phrases refer to section 15.

**\* 4 First-aid measures**

**· Description of first aid measures**

**· After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.

Call a doctor immediately.

Overexposure, remove to fresh air and seek medical attention.

**· After skin contact:**

Wipe excess from skin.

Immediately wash with water and soap and rinse thoroughly.

**· After eye contact:** Rinse opened eye for 20 minutes under running water. Call a Doctor immediately.

**· After swallowing:**

Rinse out mouth with water. Drink 1 - 2 glasses of water but DO NOT induce vomiting. Do not give liquids to a drowsy, convulsing or unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Call a doctor immediately.

Seek medical treatment.

**· 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.

USA

(Contd. on page 4)

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name: Millennium Single Ply Primer**

(Contd. of page 3)

\*

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
- Water
- Water and water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Protective clothing and respiratory protective device.

\*

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Ensure adequate ventilation
  - Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
  - Do not allow product to reach sewage system or any water course.
  - Prevent seepage into sewage system, workpits and cellars.
  - Inform respective authorities in case of seepage into water course or sewage system.
  - 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 of contaminated material as waste in accordance with federal state and local regulations.
  - Ensure adequate ventilation.
  - Do not flush with water or aqueous cleansing agents
- **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:

108-88-3	toluene	67 ppm
112945-52-5	Amorphous Silica	18 mg/m <sup>3</sup>

#### · PAC-2:

108-88-3	toluene	560 ppm
112945-52-5	Amorphous Silica	100 mg/m <sup>3</sup>

#### · PAC-3:

108-88-3	toluene	3700* ppm
112945-52-5	Amorphous Silica	630 mg/m <sup>3</sup>

\*

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
  - Avoid prolonged or repeated contact with skin.
  - Avoid contact with eyes.
  - Wash thoroughly after handling.
  - Open containers in a well ventilated area and avoid breathing headspace vapors.

(Contd. on page 5)

USA

**Safety Data Sheet**  
acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name: Millennium Single Ply Primer**

(Contd. of page 4)

*Open and handle receptacle with care.*

*Prevent formation of aerosols.*

**· Information about protection against explosions and fires:**

*Keep container closed when not in use.*

*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 away from direct heat.*

**· Information about storage in one common storage facility:** *Store away from oxidizing agents.*

**· 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 constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.*

*At this time, the other constituents have no known exposure limits.*

**108-88-3 toluene**

PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
TLV	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm BEI

**· Ingredients with biological limit values:**

**108-88-3 toluene**

BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene
	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

**· Additional information:** *The lists that were valid during the creation were used as basis.*

(Contd. on page 6)

USA

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name:** Millennium Single Ply Primer

(Contd. of page 5)

**· Exposure controls**

**· Personal protective equipment (see listings below)**

**· 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.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

**· Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

**· Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**· 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:**

Safety glasses with side shields.



Tightly sealed goggles

**· Body protection: Protective work clothing**

## \* 9 Physical and chemical properties

**· Information on basic physical and chemical properties**

**· General Information**

**· Appearance:**

Form: Liquid

Color: Clear

· Odor: Solvent-like

· Odor threshold: Not determined.

· pH-value: Not determined.

**· Change in condition**

Melting point: Undetermined.

(Contd. on page 7)

USA

**Safety Data Sheet**  
acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name: Millennium Single Ply Primer**

(Contd. of page 6)

<b>Boiling point:</b>	85 °C (185 °F)
<b>· Flash point:</b>	>-7.8 °C (>18 °F)
<b>· Flammability (solid, gaseous):</b>	Flammable.
<b>· Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
<b>· Auto igniting:</b>	Product is not selfigniting.
<b>· Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
<b>· Flammable limits:</b>	
<b>Lower:</b>	1.2 Vol %
<b>Upper:</b>	7.0 Vol %
<b>· Vapor pressure at 20 °C (68 °F):</b>	29 hPa (22 mm Hg)
<b>· Specific gravity at 20 °C (68 °F):</b>	.8 g/cm³ (.66.76 lbs/gal)
<b>· Relative density</b>	Not determined.
<b>· Vapor density</b>	Not determined.
<b>· Evaporation rate</b>	Not determined.
<b>· Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
<b>· Partition coefficient (n-octanol/water):</b>	Not determined.
<b>· Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>· Solvent content:</b>	
<b>Organic solvents:</b>	82.5 %
<b>· Solids content:</b>	15.0 %
<b>· Other information</b>	Weight per Gallon = 6.6 lbs/gal VOC <690 g/L

\*

## 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** Heat, flames, sparks.
- Incompatible materials:** Reacts with strong oxidizing agents.
- Hazardous decomposition products:**
  - Carbon monoxide and carbon dioxide
  - Hydrocarbons

USA

(Contd. on page 8)

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name: Millennium Single Ply Primer**

(Contd. of page 7)

\*

### 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**108-88-3 toluene**

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

- **Primary irritant effect:**

- **on the skin:**

*Skin irritant.*

*Irritant to skin and mucous membranes.*

- **on the eye:** Vapors may be irritating to the eyes.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

*The product shows the following dangers according to internally approved calculation methods for preparations:*

*Irritant*

*Carcinogenic.*

*The product can cause inheritable damage.*

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

108-88-3	toluene	3
102-71-6	Triethanolamine	3

- **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:** Expected to be harmful to aquatic organisms.

- **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:**

*At present there are no ecotoxicological assessments.*

*Water hazard class 2 (Self-assessment): 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.

(Contd. on page 9)

USA

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name: Millennium Single Ply Primer**

(Contd. of page 8)

- **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.  
Must be specially treated adhering to official regulations.  
Disposal must be made according to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

\* **14 Transport information**

· <b>UN-Number</b>	
· <b>DOT, IMDG, IATA</b>	UN1133
· <b>UN proper shipping name</b>	
· <b>DOT</b>	Adhesives
· <b>IMDG, IATA</b>	ADHESIVES, mixture
· <b>Transport hazard class(es)</b>	
· <b>DOT</b>	
	
· <b>Class</b>	3 Flammable liquids
· <b>Label</b>	3
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	3 Flammable liquids
· <b>Label</b>	3
· <b>Packing group</b>	
· <b>DOT, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Warning: Flammable liquids
· <b>Danger code (Kemler):</b>	33
· <b>EMS Number:</b>	F-E,S-D
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	UN1133, Adhesives, mixture, 3, II

USA

(Contd. on page 10)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name: Millennium Single Ply Primer**

(Contd. of page 9)

\*

**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):**

108-88-3	toluene
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**· TSCA (Toxic Substances Control Act):**

64742-89-8	Solvent naphtha (petroleum), light aliph.(VM&P)
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108-88-3	toluene
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	Isobutylene Copolymer
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112945-52-5	Amorphous Silica
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25038-32-8	Styrene Isoprene Block Copolymer (520617)
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27193-28-8	(1,1,3,3-tetramethylbutyl)phenol
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9003-27-4	Polyisobutene
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68953-58-2	Organoclay
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9003-35-4	Heat Reactive Phenolic Resin
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102-71-6	Triethanolamine
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**· Proposition 65**

**· Chemicals known to cause cancer:**

64742-89-8	Solvent naphtha (petroleum), light aliph.(VM&P)
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**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**· Chemicals known to cause developmental toxicity:**

108-88-3	toluene
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**· (DSL) Canada Domestic Substance List**

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

**· New Jersey Right-to-Know List:**

108-88-3	toluene
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**· New Jersey Special Hazardous Substance List:**

108-88-3	toluene	TE, F3
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**· Pennsylvania Right-to-Know List:**

108-88-3	toluene
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**· Pennsylvania Special Hazardous Substance List:**

108-88-3	toluene	E
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**· Cancerogenity categories**

**· EPA (Environmental Protection Agency)**

108-88-3	toluene	II
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(Contd. on page 11)

USA

**Safety Data Sheet**  
acc. to OSHA HCS

Printing Date 04/18/2017

Revision Number 5

Revision Date 04/18/2017

**Trade name: Millennium Single Ply Primer**

(Contd. of page 10)

<b>· TLV (Threshold Limit Value established by ACGIH)</b>	
108-88-3	toluene
<b>· MAK (German Maximum Workplace Concentration)</b>	
None of the ingredients is listed.	
<b>· NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
None of the ingredients is listed.	

A4

**National regulations:**

- **Information about limitation of use:** Use by properly trained workers recommended.
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

\* **16 Other information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

**· Department issuing SDS:** Environment protection department.**· Creation Date:** 07/01/2014**· Date of preparation / last revision** 04/18/2017 / 4**· Abbreviations and acronyms:**

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)

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 &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Carc. 1B: Carcinogenicity – Category 1B

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

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