ADDENDUM TO SAFETY DATA SHEET (SDS)

This SDS is delivered in an internationally recognised GHS format. This addendum provides information specifically for this product according to the Australian Model Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals, September 2015. This addendum should not be detached but rather read in conjunction with the SDS which follows. It remains integral to the attached SDS.

### IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Iso-Octane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>Honeywell International Inc.</td>
</tr>
<tr>
<td>Product Code/s</td>
<td>362-4</td>
</tr>
<tr>
<td>SDS Revision No:</td>
<td>N/A</td>
</tr>
<tr>
<td>Date of Issue:</td>
<td>24/04/2014</td>
</tr>
<tr>
<td>Page:</td>
<td>00 of 14</td>
</tr>
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</table>

### SUPPLIER CONTACT DETAILS

<table>
<thead>
<tr>
<th>Company</th>
<th>Chem-Supply Pty Ltd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Address</td>
<td>38 – 50 Bedford Street, Gillman SA 5013</td>
</tr>
<tr>
<td>Telephone</td>
<td>(08) 8440 2000</td>
</tr>
<tr>
<td>Fax</td>
<td>(08) 8440 2001</td>
</tr>
<tr>
<td>Emergency - Australia</td>
<td>(08) 8440 2000 (8:30 am to 5:00 pm Monday to Friday)</td>
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### MODEL WORK HEALTH AND SAFETY REGULATIONS

<table>
<thead>
<tr>
<th>GHS Hazard Class and Category</th>
<th>Flammable liquids (Category 2); Skin corrosion/irritation (Category 2); Specific target organ toxicity – Single exposure (Category 3) Central nervous system; Aspiration hazard (Category 1).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Word</td>
<td>DANGER</td>
</tr>
<tr>
<td>Hazard Statements</td>
<td>H225, H304, H315, H336</td>
</tr>
<tr>
<td>Precautionary Statements</td>
<td>See section 2, page 2</td>
</tr>
<tr>
<td>Australian Exposure Standard/s</td>
<td>None Established</td>
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</table>

### AUSTRALIAN DANGEROUS GOODS CODE INFORMATION

<table>
<thead>
<tr>
<th>UN Number</th>
<th>DG Class</th>
<th>Packing Group</th>
<th>Sub. Risk/s</th>
<th>Proper Shipping Name</th>
<th>Hazchem Code</th>
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<tbody>
<tr>
<td>1262</td>
<td>3</td>
<td>II</td>
<td>-</td>
<td>OCTANES</td>
<td>3YE</td>
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### ADDITIONAL REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>Poisons Schedule (SUSMP)</th>
<th>S5</th>
</tr>
</thead>
<tbody>
<tr>
<td>AICS</td>
<td>Listed on the Australian Inventory of Chemical Substances</td>
</tr>
</tbody>
</table>
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Iso-Octane

MSDS Number : 000000011379

Product Use Description : Solvent

Manufacturer or supplier's details : Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950-2546

For more information call : 1-800-368-0050
+1-231-726-3171
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : Medical: 1-800-498-5701 or +1-303-389-1414
Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887
(24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Form : liquid, clear
Color : colourless
Odor : slight hydrocarbon-like

Classification of the substance or mixture

Classification of the substance or mixture : Flammable liquids, Category 2
Skin irritation, Category 2
Specific target organ toxicity - single exposure, Category 3,
Central nervous system
Aspiration hazard, Category 1
GHS Label elements, including precautionary statements

Symbol(s) : ⚠️flammable ⚠️skin ⚠️danger

Signal word : Danger

Hazard statements : Highly flammable liquid and vapour. 
May be fatal if swallowed and enters airways. 
Causes skin irritation. 
May cause drowsiness and dizziness.

Precautionary statements : Prevention:
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 
Keep container tightly closed. 
Ground/bond container and receiving equipment. 
Use explosion-proof electrical/ventilating/lighting/equipment. 
Use only non-sparking tools. 
Take precautionary measures against static discharge. 
Avoid breathing dust/fume/gas/mist/vapours/spray. 
Wash skin thoroughly after handling. 
Use only outdoors or in a well-ventilated area. 
Wear protective gloves/eye protection/face protection.

Response: 
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. 
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower. 
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 
Call a POISON CENTER or doctor/physician if you feel unwell. 
Do NOT induce vomiting. 
If skin irritation occurs: Get medical advice/attention. 
Take off contaminated clothing and wash before reuse. 
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: 
Store in a well-ventilated place. Keep container tightly closed. 
Keep cool.
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000000011379

Version 1.6  Revision Date 04/24/2014  Print Date 01/02/2017

Store locked up.

**Disposal:**
Dispose of contents/ container to an approved waste disposal plant.

**Carcinogenicity**
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>540-84-1</td>
<td>100.00 %</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST AID MEASURES

**Inhalation**
Call a physician immediately. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present.

**Skin contact**
Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician.

**Eye contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician.

**Ingestion**
Do NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position. Call a physician immediately. Never give anything by mouth to an unconscious person.
Notes to physician

Treatment : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Foam
Carbon dioxide (CO2)
Dry chemical
Cool closed containers exposed to fire with water spray.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during firefighting : Extremely flammable.
Vapours may form explosive mixtures with air.
Vapours are heavier than air and may spread along floors.
Vapors may travel to areas away from work site before igniting/flashback to vapor source.
In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO2)

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear personal protective equipment. Unprotected persons must be kept away.
Immediately evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Ensure adequate ventilation.
Remove all sources of ignition.
Do not swallow.
Do not breathe vapours or spray mist.
Avoid contact with skin, eyes and clothing.

Environmental precautions : Prevent further leakage or spillage if safe to do so.
Prevent product from entering drains. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water courses.

Methods for cleaning up: Ventilate the area. No sparking tools should be used. Use explosion-proof equipment. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

### SECTION 7. HANDLING AND STORAGE

**Handling**
- Wear personal protective equipment.
- Use only in well-ventilated areas.
- Keep container tightly closed.
- Do not smoke.
- Do not swallow.
- Do not breathe vapours or spray mist.
- Avoid contact with skin, eyes and clothing.

**Advice on protection against fire and explosion**
- Keep away from fire, sparks and heated surfaces.
- Take precautionary measures against static discharges.
- Ensure all equipment is electrically grounded before beginning transfer operations.
- Use explosion-proof equipment.
- Keep product and empty container away from heat and sources of ignition.
- No sparking tools should be used.
- No smoking.

**Storage**
- Store in area designed for storage of flammable liquids. Protect from physical damage.
- Keep containers tightly closed in a dry, cool and well-ventilated place.
- Containers which are opened must be carefully resealed and
kept upright to prevent leakage.
Keep away from heat and sources of ignition.
Keep away from direct sunlight.
Store away from incompatible substances.
Container hazardous when empty.
Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.

Engineering measures : Use with local exhaust ventilation.
Prevent vapour buildup by providing adequate ventilation during and after use.

Eye protection : Do not wear contact lenses.
Wear as appropriate:
Safety glasses with side-shields
If splashes are likely to occur, wear:
Goggles or face shield, giving complete protection to eyes

Hand protection : Solvent-resistant gloves
Gloves must be inspected prior to use.
Replace when worn.

Skin and body protection : Wear as appropriate:
Solvent-resistant apron
Flame retardant antistatic protective clothing
If splashes are likely to occur, wear:
Protective suit

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
For rescue and maintenance work in storage tanks use self-contained breathing apparatus.
Use NIOSH approved respiratory protection.

Hygiene measures : When using, do not eat, drink or smoke.
Wash hands and face before breaks and immediately after handling the product.
Keep working clothes separately.
Remove and wash contaminated clothing before re-use.
Do not swallow.
Do not breathe vapours or spray mist.
Avoid contact with skin, eyes and clothing.

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value Description</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
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<tbody>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>540-84-1</td>
<td>TWA : time weighted average</td>
<td>(300 ppm)</td>
<td>03 2012</td>
<td>ACGIH: US. ACGIH Threshold Limit Values</td>
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<tr>
<td>2,2,4-Trimethylpentane</td>
<td>540-84-1</td>
<td>TWA : time weighted average</td>
<td>(300 ppm)</td>
<td>2008</td>
<td>ACGIH: US. ACGIH Threshold Limit Values</td>
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<tr>
<td>2,2,4-Trimethylpentane</td>
<td>540-84-1</td>
<td>Ceiling Time: Ceiling Limit Value and Time Period (if specified):</td>
<td>1,800 mg/m³ (385 ppm)</td>
<td>2005</td>
<td>NIOSH/GUIDE: US. Pocket Guide to Chemical Hazards</td>
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<tr>
<td>2,2,4-Trimethylpentane</td>
<td>540-84-1</td>
<td>REL : Recommended exposure limit (REL):</td>
<td>350 mg/m³ (75 ppm)</td>
<td>2005</td>
<td>NIOSH/GUIDE: US. Pocket Guide to Chemical Hazards</td>
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<tr>
<td>2,2,4-Trimethylpentane</td>
<td>540-84-1</td>
<td>PEL : Permissible exposure limit</td>
<td>2,350 mg/m³ (500 ppm)</td>
<td>02 2006</td>
<td>OSHA_TRANS: US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</td>
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</table>
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid, clear
Color : colourless
Odor : slight hydrocarbon-like
pH : Note: not applicable
Melting point/freezing point : -107.4 °C
Boiling point/boiling range : 99.24 °C
Flash point : 18 °F (-8 °C)
   Method: closed cup

Lower explosion limit : 1 %(V)
Upper explosion limit : 7 %(V)
Vapor pressure : 54.66 hPa
   at 20 °C (68 °F)
Vapor density : 3.9 Note: (Air = 1.0)
Density : 0.69 g/cm³ at 20 °C

Water solubility : 0.002 g/l at 25 °C

Ignition temperature : 411 °C

Molecular weight : 114.23 g/mol

SECTION 10. STABILITY AND REACTIVITY

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Hazardous polymerisation does not occur.

Conditions to avoid : Heat, flames and sparks.
                   : Keep away from direct sunlight.

Incompatible materials to avoid : Strong oxidizing agents
                                : Strong acids
                                : Strong bases
                                : Reducing agents

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
                                   : Carbon monoxide
                                   : Carbon dioxide (CO2)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: > 5,000 mg/kg
Species: rat
Note: No deaths

Acute inhalation toxicity: LC50: 33.52 mg/l, vapour
Exposure time: 4 h
Species: rat
Method: OECD Test Guideline 403

Acute dermal toxicity: LD50: > 2,000 mg/kg
Species: rabbit
Method: OECD Test Guideline 402
Note: No deaths

Skin irritation: Species: rabbit
Result: Irritating to skin.

Eye irritation: Species: rabbit
Result: slight irritation

SECTION 12. ECOLOGICAL INFORMATION

Further information on ecology
Additional ecological information: Bioaccumulation is unlikely.
Not inherently biodegradable.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods: Observe all Federal, State, and Local Environmental regulations.
SECTION 14. TRANSPORT INFORMATION

DOT

<table>
<thead>
<tr>
<th>UN/ID No.</th>
<th>OCTANES</th>
</tr>
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<tbody>
<tr>
<td>Class</td>
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<tr>
<td>Packing group</td>
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<tr>
<td>Hazard Labels</td>
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IATA

<table>
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<tr>
<td>Class</td>
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<tr>
<td>Packaging group</td>
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<tr>
<td>Hazard Labels</td>
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<tr>
<td>Packing instruction (cargo aircraft)</td>
<td>364</td>
</tr>
<tr>
<td>Packing instruction (passenger aircraft)</td>
<td>353</td>
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<tr>
<td>Packing instruction (passenger aircraft)</td>
<td>Y341</td>
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IMDG

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<tr>
<td>Packaging group</td>
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<tr>
<td>Hazard Labels</td>
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<td>EmS Number</td>
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<tr>
<td>Marine pollutant</td>
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SECTION 15. REGULATORY INFORMATION

Inventories

<table>
<thead>
<tr>
<th>Inventories</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>US. Toxic Substances Control Act</td>
<td>On TSCA Inventory</td>
</tr>
<tr>
<td>Australia. Industrial Chemical (Notification and Assessment) Act</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>Canada. Canadian Environmental Protection</td>
<td>All components of this product are on the Canadian DSL.</td>
</tr>
</tbody>
</table>
Act (CEPA). Domestic Substances List (DSL) : On the inventory, or in compliance with the inventory

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Toxic Chemical Control Law (TCCL) List : On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

**National regulatory information**

**US. EPA CERCLA Hazardous Substances (40 CFR 302)**

The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the Reportable Quantity (RQ):

- Reportable quantity: 1000 lbs
  - 2,2,4-Trimethylpentane 540-84-1

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

- Fire Hazard
- Acute Health Hazard

**CERCLA Reportable Quantity**

1000 lbs
California Prop. 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts RTK: 2,2,4-Trimethylpentane 540-84-1
New Jersey RTK: 2,2,4-Trimethylpentane 540-84-1
Pennsylvania RTK: 2,2,4-Trimethylpentane 540-84-1
WHMIS Classification: B2: Flammable liquid
D2B: Toxic Material Causing Other Toxic Effects
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Health hazard</th>
<th>HMIS III</th>
<th>NFPA</th>
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<tbody>
<tr>
<td>Flammability</td>
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<td>3</td>
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<tr>
<td>Physical Hazard</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Instability</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

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 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. Final determination of suitability of any material is the sole responsibility of

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the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
Previous Issue Date: 06/18/2012
Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group