1. IDENTIFICATION

Product Name: Methyl Isobutyl Ketone

Other Names: 2-Methyl-4-pentanone; 2-Methylpropyl methyl ketone; 2-Pentanone, 4-methyl-; 4-Methyl-2-oxopentane; 4-Methyl-2-pentanone; Hexone; Isopropyl Acetone; Methylisobutyl ketone; MIBK; MIK

Uses: Industrial solvent.

Chemical Family: No Data Available

Chemical Formula: (CH3)2CHCH2COCH3

Chemical Name: Methyl Isobutyl Ketone

Product Description: No Data Available

Contact Details of the Supplier of this Safety Data Sheet

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Location</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redox Pty Ltd</td>
<td>2 Swettenham Road Minto NSW 2566 Australia</td>
<td>+61-2-97333000</td>
</tr>
<tr>
<td>Redox Pty Ltd</td>
<td>11 Mayo Road Win Auckland 2104 New Zealand</td>
<td>+64-9-2506222</td>
</tr>
<tr>
<td>Redox Inc.</td>
<td>2132A E. Dominguez Street Carson CA 90810 USA</td>
<td>+1-424-675-3200</td>
</tr>
<tr>
<td>Redox Chemicals Sdn Bhd</td>
<td>Level 2, No. 8, Jalan Sapir 33/7 Shah Alam Premier Industrial Park 40400 Shah Alam Selangor, Malaysia</td>
<td>+60-3-5614-2111</td>
</tr>
</tbody>
</table>

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Location</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poisons Information Centre</td>
<td>Westmead NSW</td>
<td>1800-251525</td>
</tr>
<tr>
<td></td>
<td></td>
<td>131126</td>
</tr>
<tr>
<td>Chemcall</td>
<td>Australia</td>
<td>1800-127406</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+64-4-9179888</td>
</tr>
</tbody>
</table>

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) 5

Globally Harmonised System

Hazard Classification: Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Hazard Categories:
- Flammable Liquids - Category 2
- Acute Toxicity (Inhalation) - Category 4
- Skin Corrosion/Irritation - Category 3
- Carcinogenicity - Category 2
- Specific Target Organ Toxicity (Single Exposure) - Category 3
Pictograms

Signal Word

Danger

Hazard Statements

H225  Highly flammable liquid and vapour.
H316  Causes mild skin irritation.
H332  Harmful if inhaled.
H335  May cause respiratory irritation.
H336  May cause drowsiness or dizziness.
H351  Suspected of causing cancer.

Precautionary Statements

Prevention

P201  Obtain special instructions before use.
P210  Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233  Keep container tightly closed.
P240  Ground/bond container and receiving equipment.
P241  Use explosion-proof electrical/ventilating/lighting/equipment.
P242  Use only non-sparking tools.
P243  Take precautionary measures against static discharge.
P261  Avoid breathing fumes/gas/mist/vapours/spray.
P264  Wash face, hands and any exposed skin thoroughly after handling.
P271  Use only outdoors or in a well-ventilated area.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
P281  Use personal protective equipment as required.

Response

P303 + P361 + P353  IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313  IF exposed or concerned: Get medical advice/attention.
P312  Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P332  IF eye irritation persists: Get medical advice/attention.
P370 + P378  In case of fire: Use carbon dioxide (CO2), dry chemical, regular foam extinguishing agent or water spray for extinction.

Storage

P403 + P233  Store in a well-ventilated place. Keep container tightly closed.
P403 + P235  Store in a well-ventilated place. Keep cool.
P405  Store locked up.

Disposal

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

National Transport Commission (Australia)
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification

Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS
### Ingredients

<table>
<thead>
<tr>
<th>Chemical Entity</th>
<th>Formula</th>
<th>CAS Number</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>No Data Available</td>
<td>108-10-1</td>
<td>99.0 %</td>
</tr>
<tr>
<td>Water</td>
<td>No Data Available</td>
<td>7732-18-5</td>
<td>&lt;1.0 %</td>
</tr>
<tr>
<td>2-Methyl-2-pentanone</td>
<td>No Data Available</td>
<td>108-11-2</td>
<td>&lt;0.5 %</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Description of necessary measures according to routes of exposure**

**Swallowed**

If swallowed, DO NOT induce vomiting. Keep at rest. Seek immediate medical attention.

**Eye**

Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Seek immediate medical attention.

**Skin**

If skin or hair contact occurs, immediately remove any contaminated clothing and flush skin and hair with running water. If redness, swelling, blistering or irritation occurs, seek medical advice. For skin burns, flood burnt area with plenty of water and cover with a clean, dry dressing. Seek immediate medical attention.

**Inhaled**

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Seek immediate medical attention.

**Advice to Doctor**

Treat according to symptoms. Avoid gastric lavage: risk of aspiration of product to the lungs with the potential to cause chemical pneumonitis.

**Medical Conditions Aggravated by Exposure**

No information available on medical conditions aggravated by exposure to this product.

### 5. FIRE FIGHTING MEASURES

**General Measures**

Flame-proof equipment is necessary in all areas where this chemical is being used. Nearby equipment must be earthed.

**Flammability Conditions**

Highly Flammable Liquid!

**Extinguishing Media**

In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions. Use chemical powder, carbon dioxide, water fog, alcohol-resistant foam Keep containers cool with water spray. If safe to do so, remove containers from path of fire. If the spill cannot be stopped and there is no immediate danger in the surrounding area, allow it to burn away. If the spill is not stopped before extinguishing the fire, the vapor and the air will form an explosive mixture and ignite afterwards. Isolate the unignited substances and protection all personnel. Remove the containers from the fire site under safe conditions. Use water fog to cool the tanks and containers in the fire site. 8. Using water fog to extinguish may be ineffective unless executed by fire fighters trained for extinguishing flammable liquids. If the spill is not burning, spray water fog to disperse the vapor and protect the personnel attempting to contain the spill. Using spout to extinguish fire is useless. For large fires in a big area, use unmanned water mist stand or the automatic water fire monitor. Evacuate from the fire site as fast as possible and allow the fire to burn out. Stay far away from the storage tanks. Evacuate immediately if the safety valve alarm is on or changes color due to the fire. Personnel not wearing special protection gears will not be allowed to enter. Water fog is normally not used to extinguish fire but may be used to cool fire-exposed containers.

**Fire and Explosion Hazard**

May form flammable mixtures with air. Vapours are heavier than air and may travel to an ignition source and flash back. Vapour can spread along the ground and collect in low or confined areas. Vapour may cause flash fire. May be ignited by heat, sparks or flame. May polymerise explosively when involved in a fire. Heating can cause expansion or decomposition of the material, which can lead to the containers exploding. Oxidizers (such as peroxides, nitrates and perchlorates), reducing agent and potassium t-butoxide will induce violent reaction.

**Hazardous Products of Combustion**

Carbon dioxide and carbon monoxide

**Hazchem Code**

02YE. Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.

**Personal Protective Equipment**

Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.

**Flash Point**

18 °C Abel

**Lower Explosion Limit**

1.2 %

**Upper Explosion Limit**

8.0 %
### 6. ACCIDENTAL RELEASE MEASURES

**General Response Procedure**
Shut off all possible sources of ignition. Avoid accidents, clean up immediately. Increase ventilation. Avoid walking through spilled product as it is slippery when split. Do not breathe vapours, aerosols. Avoid substance contact. Make sure the cleaning work is performed by trained personnel.

**Clean Up Procedures**

**Major Land Spill**
- Eliminate sources of ignition.
- Warn occupants of downwind areas of possible fire and explosion hazard.
- Prevent liquid from entering sewers, watercourses, or low-lying areas.
- Keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.
- Take measures to minimise the effect on the ground water.
- Contain the spilled liquid with sand or earth.
- Recover by pumping – use explosion proof pump or hand pump – or with a suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

See "First Aid Measures" and "Stability and Reactivity".

**Confine the spill if possible.**
- Remove the product from the surface by skimming or with suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

See "First Aid Measures" and "Stability and Reactivity.".

**Containment**
Stop leak if safe to do so.

**Environmental Precautionary Measures**
Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Use clean, non-sparking tools and equipment.

**Evacuation Criteria**
Evacuate all unnecessary personnel.

**Personal Precautionary Measures**
Personnel involved in the clean up should wear full protective clothing as listed in section 8.

### 7. HANDLING AND STORAGE

**Handling**
Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid prolonged or repeated exposure. Operations should be carried out in an efficient fume hood or equivalent system. Remove contaminated clothing and wash before reuse. Keep away from open flames, hot surfaces and sources of ignition. Handling temperatures: Ambient. Do not inhale substance. Avoid generation of vapours/aerosols.

**Storage**
Store in a cool, dry, well-ventilated, fire-proof area. Keep containers tightly sealed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Ground and bond storage containers. Store away from incompatible materials as listed in section 10. Keep away from heat and sources of ignition. This product has a UN Classification of 1245 and a Dangerous Goods Class 3 (flammable) according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.

**Container**
Container type/packaging must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

Incompatible materials
- Natural Rubber, Butyl Rubber, EPDM, Polystyrene
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General
No exposure standard has been established for this product by the Safe Work Australia (SWA). Methyl isobutyl ketone CAS 108-10-1:
TWA = 50 ppm (205 mg/m3) STEL = 75 ppm (307 mg/m3)
NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Exposure Limits
No Data Available

Biological Limits
No information available on biological limit values for this product.

Engineering Measures
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Use a flame proof/explosion proof exhaust ventilation system.

Personal Protection Equipment
RESPIRATOR: Below 500 ppm: Chemical filter cartridge type breathing apparatus with organic vapor filter cartridge, supplied air type breathing apparatus or air respirator (self-contained breathing apparatus). Unknown concentration: Positive-pressure self-contained breathing apparatus, positive-pressure full air-supply respiratory apparatus with positive-pressure self-contained respiratory apparatus. Escape: (a) Full front and back gas mask with air purifying and organic vapor absorption function. (b) Any type of respirator for escaping (AS1715/1716).
EYES: Safety glasses. Do not wear contact lens when using safety goggles or face masks (AS1336/1337).
HANDS: Impermeable gloves made from Responder, Teflon, 4H and Tychem 10000 are preferable; however, prolonged use is not recommended. Wash properly and dry after use (AS2161).
CLOTHING: Wear flame retardant antistatic protective clothing and anti-static footwear (AS3765/2210).

Work Hygienic Practices
Polluted clothes should be removed as soon as the work is completed. The clothes should be worn or discarded only after being washed. The washing staff should be informed of the harmful effects of the pollution. Eating, drinking, and smoking are strictly prohibited in the work area. Wash hands thoroughly after handling the substance. Keep the work area clean.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical State | Liquid |
| Appearance     | Liquid |
| Odour          | Camphor, thick sweet odour |
| Colour         | Clear colourless |
| pH             | No Data Available |
| Vapour Pressure| 26.4 hPa (@ 25 °C) |
| Relative Vapour Density | 3.5 Air = 1 |
| Boiling Point  | 116.5 °C |
| Melting Point  | -84 °C |
| Freezing Point | No Data Available |
| Solubility     | miscible with Ethanol Diethyl ether Acetone Benzene soluble in Chloroform |
| Specific Gravity| 0.800 g/cm3 |
| Flash Point    | 18 °C Abel |
| Auto Ignition Temp | 448 °C |
| Evaporation Rate| 5.6 Ether =1 |
| Bulk Density   | No Data Available |
| Corrosion Rate | No Data Available |
| Decomposition Temperature | No Data Available |
| Density        | 0.8 g/ml |
| Specific Heat  | No Data Available |
| Molecular Weight| No Data Available |
| Net Propellant Weight| No Data Available |
Octanol Water Coefficient: No Data Available
Particle Size: No Data Available
Partition Coefficient: 1.9 (measured)
Saturated Vapour Concentration: No Data Available
Vapour Temperature: 20 °C
Viscosity: 0.545 mPa*s (@ 25 °C)
Volatile Percent: No Data Available
VOC Volume: No Data Available
Additional Characteristics: No Data Available
Potential for Dust Explosion: Product is a flammable liquid.
Fast or Intensely Burning Characteristics: No Data Available
Flame Propagation or Burning Rate of Solid Materials: No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire: No Data Available
Properties That May Initiate or Contribute to Fire Intensity: No Data Available
Reactions That Release Gases or Vapours: No Data Available
Release of Invisible Flammable Vapours and Gases: No Data Available

10. STABILITY AND REACTIVITY

General Information: Highly Flammable Liquid.
Chemical Stability: Stable at room temperature and pressure.
Conditions to Avoid: Avoid contact with heat, sparks, open flame, and static discharge. Avoid any source of ignition.
Materials to Avoid: Strong oxidizing agents, peroxides, ozone.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and other organic complexes on incomplete burning or oxidation.
Hazardous Polymerisation: Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

General Information: Inhaled LC50 (4h): > 8.2 - < 16.4 mg/l
Dermal LD50: > 2000 mg/kg
MIBK is listed as an IARC 2B, possible human carcinogen based on animal data.
EyeIrritant: May cause eye irritation. Symptoms of exposure may include: Eye irritation, burning sensation, pain, watering, and/or change of vision.
Ingestion: Symptoms of exposure may include: Nausea, vomiting, loss of appetite, gastrointestinal irritation and/or diarrhoea. Central nervous system depression with nausea, dizziness, headache, stupor, uncoordinated or strange behaviour, or unconsciousness.
Inhalation: May cause irritation of respiratory tract. Symptoms of exposure may include: Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty. Central nervous system depression with nausea, dizziness, headache, stupor, uncoordinated or strange behavior or unconsciousness.
SkinIrritant: Prolonged or repeated contact may dry skin and cause irritation. Symptoms of overexposure include: Drying, cracking or inflammation of skin.
Carcinogen Category: No Data Available
12. ECOLOGICAL INFORMATION

Ecotoxicity
Acute fish toxicity : LC50: > 179 mg/l (96h) Species: Danio rerio (Zebra fish) Method OECD 203
Acute daphnia toxicity : EC50: > 200 mg/l (48h) Species: Daphnia magna Method OECD 202 Method OECD 211
Toxicity to bacteria : EC50 (16h): 275 mg/l Species: Pseudomonas putida Method DIN 38412 T.8

Persistence/Degradability
Readily biodegradable
83 % (28d)
OECD 301 F

Mobility
This product is soluble in water and therefore highly mobile on dilution risking contamination of soil, waterways, grasslands, and groundwater.

Environmental Fate
Do NOT allow product to enter waterways, drains and sewers. Released in water, this material may evaporate, decompose by photolysis, bioaccumulation inside organic organisms in the water, or adsorb to dirt and settle. When released to air, this material is expected to be readily decomposed by photolysis or react with free hydroxyl radicals.
Half-life (air): 4.6 – 468 hrs
Half-life (water surface): 24 – 336 hrs
Half-life (underground water): 48 – 168 hrs
Half-life (soil): 45.5 – 168024 hrs

Bioaccumulation Potential
Bio-concentration factor (BCF): 2-5. This material will transform into other substances and not accumulate inside the body.

Environmental Impact
No Data Available

13. DISPOSAL CONSIDERATIONS

General Information
Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility. For small amounts, absorb using paper napkin and burn in approved solvent incinerator. For large amounts, collect and then dispose using specified incinerating method.

Special Precautions for Land Fill
Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

Land Transport (Australia)
ADG Code

Proper Shipping Name METHYL ISOBUTYL KETONE
Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available
EPG 14 Liquids - Highly Flammable
UN Number 1245
Hazchem •3YE
Pack Group II
Special Provision No Data Available

Sea Transport
IMDG Code

Proper Shipping Name METHYL ISOBUTYL KETONE
Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available
UN Number 1245
Hazchem: 3YE
Pack Group: II
Special Provision: No Data Available
EMS: F-E,S
Marine Pollutant: No

Air Transport
IATA

Proper Shipping Name: METHYL ISOBUTYL KETONE
Class: 3 Flammable Liquids
Subsidiary Risk(s): No Data Available
UN Number: 1245
Hazchem: 3YE
Pack Group: II
Special Provision: No Data Available

National Transport Commission (Australia)
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification: Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information: No Data Available
Poisons Schedule (Aust): 5

National/Regional Inventories

Australia (AICS): Listed
Canada (DSL): Listed
Canada (NDSL): Not Determined
China (IECSC): Listed
Europe (EINECS): 203-550-1
Europe (REACH): Not Determined
Japan (ENCS/METI): Listed
Korea (KECI): Listed
Malaysia (EHS Register): Not Determined
New Zealand (NZIoC): Listed
Philippines (PICCS): Listed
Switzerland (Giftliste 1): Not Determined
Switzerland (Inventory of Notified Substances): Not Determined
Taiwan (NCSR)  
Not Determined

USA (TSCA)  
Listed

16. OTHER INFORMATION

Related Product Codes

MEISBU0900, MEISBU1000, MEISBU1001, MEISBU1002, MEISBU1003, MEISBU1004, MEISBU1005, MEISBU1006, MEISBU1007, MEISBU1008, MEISBU1009, MEISBU1010, MEISBU1011, MEISBU1012, MEISBU1013, MEISBU1014, MEISBU1015, MEISBU1016, MEISBU1017, MEISBU1018, MEISBU1019, MEISBU1020, MEISBU1800, MEISBU1900, MEISBU2000, MEISBU2001, MEISBU2002, MEISBU2100, MEISBU2101, MEISBU2200, MEISBU2201, MEISBU2202, MEISBU2300, MEISBU2400, MEISBU3000, MEISBU4000, MEISBU4001, MEISBU1801, MEISBU1802, MEISBU1803, MEISBU1804, MEISBU4100, MEISBU3010, MEISBU3025, MEISBU3024, MEISBU3026, MEISBU3020, MEISBU3023, MEISBU3022, MEISBU3021, MEISBU3020, MEISBU3027, MEISBU9005, MEISBU5000, MEISBU5005, MEISBU4200, MEISBU4205

Revision

4

Revision Date

09 Nov 2015

Reason for issue

SDS Updated

Key/Legend

< Less Than  
> Greater Than  
AICS Australian Inventory of Chemical Substances  
atm Atmosphere  
CAS Chemical Abstracts Service (Registry Number)  
cm² Square Centimetres  
CO₂ Carbon Dioxide  
COD Chemical Oxygen Demand  
deg C (°C) Degrees Celcius  
EPA (New Zealand) Environmental Protection Authority of New Zealand  
deg F (°F) Degrees Farenheit  
g Grams  
g/cm² Grams per Cubic Centimetre  
g/l Grams per Litre  
HSNO Hazardous Substance and New Organism  
IDLH Immediately Dangerous to Life and Health  
immiscible Liquids are insoluable in each other.  
InHg Inch of Mercury  
InH₂O Inch of Water  
K Kelvin  
kg Kilogram  
kg/m³ Kilograms per Cubic Metre  
lb Pound  
LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.  
LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.  
ltr or L Litre  
m³ Cubic Metre  
mbar Millibar  
mg Milligram  
mg/24H Milligrams per 24 Hours  
mg/kg Milligrams per Kilogram  
mg/m³ Milligrams per Cubic Metre  
Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.  
mm Millimetre  
mmH₂O Millimetres of Water  
mPascal Millipascals per Second  
N/A Not Applicable  
NIOSH National Institute for Occupational Safety and Health  
NOHSC National Occupational Health and Safety Commission  
OECD Organisation for Economic Co-operation and Development  
Oz Ounce  
PEL Permissible Exposure Limit  
Pa Pascal  
ppb Parts per Billion  
ppm Parts per Million  
ppm/2H Parts per Million per 2 Hours