



Safety Data Sheet

Methylethyl ketone (MEK)

Revision 5, 22/08/2024

1. IDENTIFICATION

Product Name	Methylethyl ketone (MEK)
Other Names	Methyl acetone
Uses	Solvent used in resins, surface coatings, wood coatings, adhesives, thinners, paints, printing inks and cleaning agents. Industrial use in lubricating oil.
Chemical Family	No Data Available
Chemical Formula	C ₄ H ₈ O
Chemical Name	2-Butanone
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Aurora Cleaning Supplies	F1 / 5 Bungaleen Court Dandenong South VIC 3175	03 9768 2669

Emergency Contact Details

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

Organisation	Location	Telephone
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Schedule 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

Serious Eye Damage/Irritation - Category 2A

Specific Target Organ Toxicity (Single Exposure) - Category 3

Pictograms



Signal Word

Danger

Hazard Statements

AUH066 Repeated exposure may cause skin dryness or cracking
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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 and all other equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing fumes/gas/mist/vapours/spray.
P264 Wash contacted areas thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep 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.
P312 Call a POISON CENTER or doctor if you feel unwell.
P337 + P313 If eye irritation persists: Get medical attention.

Storage

P370 + P378 In case of fire: Use carbon dioxide (CO₂), dry chemical or foam for extinction.
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)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications	Physical Hazards	3.1B	Flammable liquid - high hazard
	Health Hazards	6.4A	Substances that are irritating to the eye
		6.9B	Substances that are harmful to human target organs or systems

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
2-Butanone	C ₄ H ₈ O	78-93-3	>=99.7 %
Water	H ₂ O	7732-18-5	<=0.05 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then give a glass of water. Do not induce vomiting. Call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.
Skin	IF ON SKIN: Remove and isolate contaminated clothing and shoes. Immediately flush skin with running water for at least 15 minutes. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse. *In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Advice to Doctor	Immediate medical attention is required. Show this material safety data sheet (SDS) to the doctor in attendance. Treat symptomatically. Symptoms may be delayed. Keep victim calm and warm. Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool container with water spray until well after fire is out. Avoid getting water inside containers.
Flammability Conditions	HIGHLY FLAMMABLE LIQUID: Low flashpoint - Will be easily ignited by heat, sparks or flames at ambient temperatures.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO ₂), foam or water spray for extinction - Do not use water jets. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray can be used. *Caution: Use of water spray when fighting fire may be inefficient.
Fire and Explosion Hazard	Risk of violent reaction or explosion! Vapours will form explosive mixtures with air. Vapours will travel to source of ignition and flash back. Many vapours are heavier than air and will collect in low or confined areas. Vapours from runoff may create an explosion hazard. Containers may explode when heated. Fire exposed containers may vent contents through pressure relief valves, thereby increasing fire intensity and/or vapour concentration.
Hazardous Products of Combustion	Fire may produce irritating, toxic and/or corrosive gases, including oxides of Carbon.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may pollute waterways; Vapours from runoff may create an explosion hazard.

Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will provide thermal protection but provides only limited chemical protection.
Flash Point	-9 °C [Closed cup]
Lower Explosion Limit	1.8 %
Upper Explosion Limit	11.5 %
Auto Ignition Temperature	505 °C
Hazchem Code	•2YE

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flame). All equipment used in handling the product must be earthed. Do not touch or walk through spilled material - Slippery when spilt. Avoid accidents, clean up immediately! Avoid breathing vapours and contact with eyes, skin and clothing.
Clean Up Procedures	Absorb spill with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect material and place it in suitable, labelled containers for later disposal (see SECTION 13).
Containment	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. In case of large spillage, contain by bunding. A vapour-suppressing foam may be used to reduce vapours. Water spray may reduce vapour, but may not prevent ignition in closed spaces. *Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Decontamination	No information available.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses. If contamination of sewers or waterways has occurred advise local emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised/unprotected personnel away. Keep upwind and to higher ground.
Personal Precautionary Measures	Wear protective equipment to avoid skin and eye contact and breathing in vapours (see SECTION 8).

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation - Use only outdoors or in a well-ventilated place. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Ground/bond container and receiving equipment. Use explosion-proof equipment and non-sparking tools. Take precautionary measures against static discharge. Do not use compressed air for filling, discharging or handling operations.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed - Check regularly for leaks. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up.
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	For Methyl ethyl ketone (CAS No. 78-93-3): - Safe Work Australia Exposure Standard: TWA = 150 ppm (445 mg/m ³); STEL = 300 ppm (890 mg/m ³). - New Zealand Workplace Exposure Standard: TWA = 150 ppm (445 mg/m ³); STEL = 300 ppm (890 mg/m ³); Exposure can also be estimated by biological monitoring (bio). - OSHA PEL/NIOSH REL: TWA = 200 ppm (590 mg/m ³); STEL = 300 ppm (885 mg/m ³). - Immediately dangerous to life or health (IDLH) concentration: 3,000 ppm.
Exposure Limits	No Data Available
Biological Limits	BEI values set by WorkSafe NZ: - Exposure: Methyl ethyl ketone (MEK)

- Determinant: MEK in urine
- Sampling time: End of shift
- BEI: 2 mg/litre

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 explosion-proof electrical/ventilating/lighting/equipment.

Personal Protection Equipment

- Respiratory protection: In case of inadequate ventilation or if an inhalation risk exists, wear respiratory protection. Recommended: Organic vapour/particulate respirator or air-supplied mask (refer to AS/NZS 1715 & 1716).
- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Tightly fitting safety goggles.
- Hand protection: Wear protective gloves. Recommended: Impervious gloves (such as butyl rubber).
- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Wear fire/flammable resistant/retardant clothing and antistatic boots.

Special Hazards Precautions

Vapour heavier than air - prevent concentration in hollows or sumps. Do not enter confined spaces where vapour may have collected.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Transparent liquid
Odour	Characteristic
Colour	Colourless
pH	No Data Available
Vapour Pressure	10.5 kPa (@ 20 °C)
Relative Vapour Density	2.48 Air = 1
Boiling Point	79 °C
Melting Point	No Data Available
Freezing Point	-87.3 °C
Solubility	Partly miscible with water
Specific Gravity	0.805 - 0.807 (Water = 1)
Flash Point	-9 °C [Closed cup]
Auto Ignition Temp	505 °C
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	0.29
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Not applicable.

Fast or Intensely Burning Characteristics	Risk of violent reaction or explosion!
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	HIGHLY FLAMMABLE LIQUID: Low flashpoint - Will be easily ignited by heat, sparks or flames at ambient temperatures.
Reactions That Release Gases or Vapours	Fire may produce irritating, toxic and/or corrosive gases, including oxides of Carbon.
Release of Invisible Flammable Vapours and Gases	Vapours will form explosive mixtures with air.

10. STABILITY AND REACTIVITY

General Information	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical Stability	Stable under proper operation and storage conditions.
Conditions to Avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
Materials to Avoid	Incompatible/reactive with oxidants, chloroform, bromoform and other organic solvents; Alkali, sodium, calcium and other active metal, halogen, metal oxide, non-metal oxide, acyl halide and metal phosphide.
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Fire may produce irritating, toxic and/or corrosive gases, including oxides of Carbon.
Hazardous Polymerisation	Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none">- Acute toxicity: May be harmful if swallowed and if inhaled. Swallowing can result in nausea, vomiting and central nervous system depression.- Skin corrosion/irritation: May cause skin irritation. Will have a degreasing action on the skin. Repeated exposure may cause skin dryness or cracking.- Eye damage/irritation: Causes serious eye irritation, redness, pain.- Respiratory/skin sensitisation: Not found to induce dermal sensitisation (Guinea pigs) [OECD Test Guideline 406].- Germ cell mutagenicity: Not expected to be genotoxic.- Carcinogenicity: No information available.- Reproductive toxicity: No information available.- STOT (single exposure): May cause drowsiness or dizziness. Material may be irritant to the mucous membranes of the respiratory tract (airways). Breathing in high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.- STOT (repeated exposure): No information available.- Aspiration toxicity: No information available.
Acute	
Ingestion	Acute toxicity (Oral): <ul style="list-style-type: none">- LD50, Rat: 2,737 mg/kg [Supplier's SDS].
Inhalation	Acute toxicity (Inhalation): <ul style="list-style-type: none">- LC50, Mouse: 32 mg/L (4 h) [Supplier's SDS].
Other	Acute toxicity (Dermal): <ul style="list-style-type: none">- LD50, Rabbit: 6,480 mg/kg [Supplier's SDS].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: <ul style="list-style-type: none">- LC50, Fish: 3,220 mg/L (96 h).
--------------------	--

	- EC50, Crustacea: 5,090 mg/L (48 h). - ErC50, Algae: >1,200 mg/L (72 h).
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	Prevent entry into drains and waterways.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations. Incineration disposal is recommended.
Special Precautions for Land Fill	Containers may still present chemical hazard when empty. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Recycle, if possible.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code	
Proper Shipping Name	ETHYL METHYL KETONE (METHYL ETHYL KETONE)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	14 Liquids - Highly Flammable
UN Number	1193
Hazchem	•2YE
Pack Group	II
Special Provision	No Data Available

Land Transport (Malaysia)

ADR Code	
Proper Shipping Name	ETHYL METHYL KETONE (METHYL ETHYL KETONE)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	14 Liquids - Highly Flammable
UN Number	1193
Hazchem	2YE
Pack Group	II
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433	
Proper Shipping Name	ETHYL METHYL KETONE (METHYL ETHYL KETONE)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	14 Liquids - Highly Flammable
UN Number	1193

Hazchem	•2YE
Pack Group	II
Special Provision	No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name	ETHYL METHYL KETONE (METHYL ETHYL KETONE)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
ERG	127 Flammable Liquids (Polar / Water-Miscible)
UN Number	1193
Hazchem	2YE
Pack Group	II
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	ETHYL METHYL KETONE (METHYL ETHYL KETONE)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	1193
Hazchem	2YE
Pack Group	II
Special Provision	No Data Available
EMS	F-E, S-D
Marine Pollutant	No

Air Transport

IATA DGR

Proper Shipping Name	ETHYL METHYL KETONE (METHYL ETHYL KETONE)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	1193
Hazchem	2YE
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	METHYL ETHYL KETONE
Poisons Schedule (Aust)	Schedule 5

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR001190 (Reissued)**National/Regional Inventories**

Australia (AIIIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	201-159-0
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	MEETKE1000, MEETKE1001, MEETKE1002, MEETKE1003, MEETKE1004, MEETKE1005, MEETKE1006, MEETKE1007, MEETKE1008, MEETKE1009, MEETKE1010, MEETKE1011, MEETKE1012, MEETKE1013, MEETKE1014, MEETKE1015, MEETKE1016, MEETKE1017, MEETKE1018, MEETKE1019, MEETKE1020, MEETKE1021, MEETKE1022, MEETKE1023, MEETKE1024, MEETKE1025, MEETKE1026, MEETKE1027, MEETKE1028, MEETKE1029, MEETKE1030, MEETKE1031, MEETKE1032, MEETKE1033, MEETKE1034, MEETKE1035, MEETKE1036, MEETKE1037, MEETKE1038, MEETKE1039, MEETKE1040, MEETKE1041, MEETKE1042, MEETKE1043, MEETKE1044, MEETKE1045, MEETKE1046, MEETKE1047, MEETKE1048, MEETKE1049, MEETKE1050, MEETKE1100, MEETKE1700, MEETKE1701, MEETKE1702, MEETKE1703, MEETKE1800, MEETKE1802, MEETKE1900, MEETKE2000, MEETKE2001, MEETKE2002, MEETKE2003, MEETKE2100, MEETKE2200, MEETKE2201, MEETKE2300, MEETKE2400, MEETKE2500, MEETKE2600, MEETKE3000, MEETKE3001, MEETKE3010, MEETKE3011, MEETKE3012, MEETKE3020, MEETKE3030, MEETKE3040, MEETKE3050, MEETKE3060, MEETKE3061, MEETKE3070, MEETKE3080, MEETKE3090, MEETKE3100, MEETKE3110, MEETKE3111, MEETKE3112, MEETKE3113, MEETKE3114, MEETKE3115, MEETKE3116, MEETKE3117, MEETKE3118, MEETKE3120, MEETKE3130, MEETKE3140, MEETKE3150, MEETKE3160, MEETKE3200, MEETKE3500, MEETKE3501, MEETKE4000, MEETKE4110, MEETKE4200, MEETKE4500, MEETKE4600, MEETKE5000, MEETKE5600, MEETKE5900, MEETKE6000, MEETKE6100, MEETKE6101, MEETKE6102, MEETKE6105, MEETKE6200, MEETKE6300, MEETKE6400, MEETKE6500, MEETKE6505, MEETKE6507, MEETKE7000, MEETKE8000, MEETKE8888, MEETKE9000
------------------------------	--

Revision 5**Revision Date** 22/08/2024

< Less Than

Key/Legend

> 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/cm³ 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
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Heath 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
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight