

<b>PRODUCT NAME</b>	RB-26
<b>PART NUMBER</b>	RB-26
<b>27/08/2020</b>	30/10/2019
<b>DOCUMENT NUMBER</b>	SDS No.: KWAP 003 Rev.0

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### TRADE DESIGNATION:

RB-26

### RESTRICTIONS ON USE:

For welding

### DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

#### PRODUCER:

KOBELCO WELDING ASIA PACIFIC PTE. LTD.

Under license from Kobe Steel Ltd. Welding Business

(Location: 101-1, Miyamae Fujisawa, 251-8551 Japan)

20 Pandan Avenue, Jurong Singapore 609387

Telephone: +65-6269-2711

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Email: [info@kobelcowelding.nl](mailto:info@kobelcowelding.nl)

#### EMERGENCY TELEPHONE NUMBER:

+65-6268-2711

#### SUPPLIERS (IMPORTERS) NAME, ADDRESS & PHONE NUMBER:

##### SUPPLIERS (IMPORTERS) NAME:

Talarc Pty Ltd

##### SUPPLIERS (IMPORTERS) ADDRESS:

10-16 Syme Street, Brunswick, Victoria, 3056, Australia

##### SUPPLIERS (IMPORTERS) PHONE:

+61 3 9388 0588

##### SUPPLIERS (IMPORTERS) EMAIL:

sales@talarc.com

##### SUPPLIERS (IMPORTERS) WEB SITE:

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#### EMERGENCY PHONE NUMBER:

POISONS INFORMATION CENTRE AUSTRALIA: 13 11 26

SECTION 2: Hazards



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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**MIXTURES:**

CHEMICAL NAME	CAS NO.	CONCENTRATION RANGE (%)
Iron	7439-89-6	Balance
Titanium dioxide	13463-67-7	8-18
Silicon dioxide	14808-60-7	<8
Manganese	7439-96-5	<3
Calcium carbonate	471-34-1	<3
Potassium oxide	12136-45-7	<3
starch	9005-25-8	<3
Aluminium oxide	1344-28-1	<3
Sodium oxide	1313-59-3	<1
Wood powder	-	<1
Ferric oxide	1309-37-1	<1
Zirconium oxide	1314-23-4	<1
Carbon	7440-44-0	<1
Ferrous oxide	1345-25-1	<1
Guar Gum	9000-30-0	<1

### 4. FIRST AID MEASURES

**DESCRIPTION OF FIRST AID MEASURES:**

**INHALATION:** Remove person to fresh air and keep comfortable for breathing and get medical advice/attention. If breathing has stopped, perform artificial respiration and get immediate medical advice/attention.

**SKIN CONTACT:** Take off contaminated clothing and rinse skin with soap and water [or shower]. If skin irritation occurs, get medical advice/attention. For reddened or blistered skin, or thermal burns, get medical advice/attention.

**EYE CONTACT:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. Arc rays can injure eyes. If exposed to arc rays, move victim to dark room, remove contact lenses as necessary for treatment, cover eyes with a padded dressing and rest. If symptoms persist, get medical advice/attention.

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**ELECTRIC SHOCK:** Disconnect and turn off power. If the victim is semi- or unconscious, open the airway. If the victim cannot breathe, give artificial respiration. If there is no pulse, massage the chest and apply artificial respiration.

**INGESTION:** Unlikely due to form of product, except for granular materials. If ingested, Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

**MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:**

**SYMPTOMS:**

Short-term (acute) overexposure to welding fumes may result in discomfort such as metal fume fever, dizziness, nausea, or dryness or irritation of nose, throat, or eyes. May aggravate pre-existing respiratory problems (e.g. asthma, emphysema).

Long-term (chronic) overexposure to welding fumes can lead to siderosis (iron deposits in lung), central nervous system effects, bronchitis and other pulmonary effects. Refer to Section 11 for more information.

**HAZARDS:** Welding hazards are complex and may include physical and health hazards such as but not limited to electric shock, physical strains, radiation burns (eye flash), thermal burns due to hot metal or spatter and potential health effects of overexposure to welding fume or dust. **Refer to Section 11 for more information.**

**INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:** Treat symptomatically

## 5. FIREFIGHTING MEASURES

**GENERAL FIRE HAZARDS:** As shipped, this product is non-flammable. However, welding arc and sparks can ignite combustibles and flammable products. See WTIA Technical Note No. 7 Health and Safety in Welding before using this product.

**SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA:**

**SUITABLE EXTINGUISHING MEDIA:** As shipped, the product will not burn. In case of fire in the surroundings, use CO<sub>2</sub>, powder or water spray.

**UNSUITABLE EXTINGUISHING MEDIA:** None known.

**SPECIFIC HAZARDS ARISING FROM CHEMICAL:** None known.

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS:**

**SPECIAL PROTECTIVE EQUIPMENT:** Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire

**SPECIAL PRECAUTIONS:** Use standard firefighting procedures and consider the hazards of other involved materials.

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## 6. ACCIDENTAL RELEASE MEASURES

**GENERAL:** Unlikely due to form of product, except for granular materials. The welding fumes and slags may be released.

### **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY**

**PROCEEDURES:** If airborne dust and/or fume is present, use adequate engineering controls and, if needed, personal protection to prevent overexposure. Refer to recommendations in Section 8.

**METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:** Clean up spills immediately, observing precautions in the personal protective equipment in Section 8. Avoid generating dust. Prevent product from entering any drains, sewers or water sources. Refer to Section 13 for proper disposal.

**ENVIRONMENTAL PRECAUTIONS:** Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

## 7. HANDLING AND STORAGE

### **PRECAUTIONS FOR SAFE HANDLING:**

**REDUCTION OF FUMES AND DUST:** Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Read and understand the manufacturer's instruction and the precautionary label on the product. See WTIA Technical Note No. 7 Health and Safety in Welding.

**PREVENTION OF ELECTRIC SHOCK:** Do not touch live electrical parts such as the welding wire and welding machine terminals. Wear insulated gloves and safety boots. If welding must be performed in damp locations or with wet clothing, on metal structures or when in cramped positions such as sitting, kneeling or lying, or if there is a high risk of unavoidable or accidental contact with workpiece, use the following equipment: Semiautomatic DC Welder, DC Manual (Stick) Welder, or AC Welder with Reduced Voltage Control.

**PREVENTION OF FIRE AND EXPLOSION:** Remove flammable and combustible materials and liquids.

**PREVENTION OF HARM WHEN HANDLING WELDING CONSUMABLES:** Handle with care to avoid stings and cuts. Hold the welding wire manually when loosening the wire.

### **CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:**

Store welding consumables inside a room without humidity. Do not store welding consumables directly on the ground or beside a wall. Keep welding consumables away from chemical substances like acids which could cause chemical reactions. Store in accordance with local/regional/national regulations.

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## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### CONTROL PARAMETERS:

For substances may be included in welding fumes, gases and flux, occupational exposure values are shown in Annex. **Keep exposure below exposure limits.** Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) are values published by the American Conference of Government Industrial Hygienists (ACGIH). ACGIH Statement of Positions Regarding the TLVs and BEIs states that the TLV-TWA should be used as a guide in the control of health hazards and should not be used to indicate a fine line between safe and dangerous exposures. See Section 10 for information on potential fume constituents of health interest.

### APPROPRIATE ENGINEERING CONTROLS:

**VENTILATION:** Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gases below the exposure limits in the worker's breathing zone and the general area. Keep exposure as low as possible. Determine the composition and quantity of fumes and gases to which workers are exposed by taking an air sample from inside the welder's helmet if worn or in the worker's breathing zone. Improve ventilation if exposures are not below limits. See WTIA Technical Note No. 7 Health and Safety in Welding

### INDIVIDUAL PROTECTION MEASURES:

**EYE PROTECTION:** Wear helmet or use face shield with filter lens. As a rule of thumb, start with a shade which is too dark to see the weld zone. Then go to the next lighter shade which gives sufficient view of the weld zone. Provide protective screens and flash goggles, if necessary, to shield others.

**HAND PROTECTION:** Wear protective gloves. Suitable gloves can be recommended by the glove supplier.

**PROTECTIVE CLOTHING:** Wear hand, head, and body protection which help to prevent injury from radiation, sparks and electrical shock. See Z49.1. At a minimum this includes welder's gloves and a protective face shield, and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Wear dry gloves free of holes or split seams. Train the welder not to permit electrically live parts or electrodes to contact skin or clothing or gloves if they are wet. Insulate yourself from the work piece and ground using dry plywood, rubber mats or other dry insulation.

**RESPIRATORY PROTECTION:** Keep your head out of fumes. Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and the general area. Use respirable fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below exposure limits.

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**EAR PROTECTION:** Wear earplugs or earmuffs when using engine driven arc welding machine or pulsed arc welding machine that generates high-level noise.

**HYGIENE MEASURES:** Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Physical state:	Solid
Form	Wire or Rod
Color:	Silver or Copper
Odor:	Odorless
Odor threshold:	No further relevant information available
pH:	Not applicable
Melting point/freezing point:	No further relevant information available
Boiling point, initial boiling point and boiling range:	No further relevant information available
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability:	No further relevant information available
Upper/lower flammability or explosive limits:	No further relevant information available
Vapor pressure:	Not applicable
Vapor density:	Not applicable
Solubility(ies)	No further relevant information available
Partition coefficient (n-octanol/water):	No further relevant information available
Auto-ignition temperature:	No further relevant information available
Decomposition temperature:	No further relevant information available
Viscosity:	Not applicable





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## 11 TOXICOLOGICAL INFORMATION

**GENERAL:** Classification not possible as product. Refer to Sec.2. Inhalation of welding fumes and gases can be dangerous to your health. The composition and quantity of both are dependent upon the material being worked, the process, procedures, and consumables used. Refer to Sec.10

**ACUTE TOXICITY:** Short-term (acute) overexposure to welding fumes may result in discomfort such as metal fume fever, dizziness, nausea, or dryness or irritation of nose, throat, or eyes. May aggravate pre-existing respiratory problems (e.g. asthma, emphysema).

**CR:** The presence of chromium/chromate in welding fumes can cause irritation of nasal membranes and skin.

**Ni:** The presence of nickel compounds in fume can cause metallic taste, nausea, tightness of chest, fever.

**F:** Exposure to the fluoride ion in welding fumes may cause hypocalcaemia-calcium deficiency in the blood that can result in muscle cramps and inflammation and necrosis of mucous membranes.

**GASES:** Some toxic gases associated with welding may cause pulmonary edema, asphyxiation, and death

**CHRONIC TOXICITY:** Long-term (chronic) overexposure to welding fumes can lead to siderosis (iron deposits in lung), central nervous system effects, bronchitis, pneumoconiosis and other pulmonary effects. The severity of the change is proportional to the length of the exposure. The changes may be caused by non-work factors such as smoking, etc.

**Ni:** Long term overexposure to nickel fumes may also cause pulmonary fibrosis and edema.

**Cr:** Chromates may cause ulceration, perforation of the nasal septum, and severe irritation of the bronchial tubes and lungs. Liver damage have also been reported. Chromates contain the hexavalent form of chromium.

**Mn:** Overexposure to manganese compounds may affect the central nervous system, symptoms of which are languor, sleepiness, muscular weakness, emotional disturbances and spastic gait. The effect of manganese on the nervous system is irreversible.

**Cu:** Overexposure to copper fumes may lead to copper poisoning, resulting in thermolytic anaemia and liver, kidney and spleen damage.

**Fe:** Inhalation of too much iron oxide fume over a long time can cause siderosis, sometimes called "iron pigmentation" of the lung, which can be seen on a chest x-ray but causes little or no disability. Chronic overexposure to iron (>50-100mg Fe per day) can result in pathological deposition of iron in body tissues, symptoms of which are fibrosis of the pancreas, diabetes mellitus, and liver cirrhosis.

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**SiO2:** Respiratory exposure to the crystalline silica present in this welding electrode is not anticipated during normal use. Respiratory overexposure to airborne crystalline silica is known to cause silicosis, a form of disabling pulmonary fibrosis which can be progressive and may lead to death.

**F:** Chronic fluoride absorption can result in osseous fluorosis, increased radiographic density of the bones and mottling of the teeth.

**CARCINOGENICITY:** Welding fumes (not otherwise specified) are possibly carcinogenic to humans. Welding fumes is on the IARC lists as posing a cancer risk.

**SiO2:** Crystalline silica is on the IARC (International Agency for Research on Cancer) and NTP (National Toxicology Program) lists as posing a cancer risk to humans.

**Ni:** Nickel and its compounds are on the IARC and NTP lists as posing respiratory cancer risk.

**Cr:** Hexavalent chromium and its compounds are on the IARC and NTP lists as posing a cancer risk to humans

**ARC RAYS:** Skin cancer has been reported.

**RAYS:**

**RESPIRATORY OR SKIN SENSITISATION:**

**Ni:** Nickel and its compounds are skin sensitizers with symptoms ranging from slight itch to severe dermatitis.

**Cr:** Chromates may cause allergic reactions, including skin rash. Asthma has been reported in some sensitized individuals. Skin contact may result in irritation, ulceration, sensitization, and contact dermatitis.

**OTHERS:** Organic polymers may be used in the manufacture of various welding consumables. Overexposure to their decomposition by-products may result in a condition known as polymer fume fever. Polymer fume fever usually occurs within 4 to 8 hours of exposure with the presentation of flu like symptoms, including mild pulmonary irritation with or without an increase in body temperature. Signs of exposure can include an increase in white blood cell count. Resolution of symptoms typically occurs quickly, usually not lasting longer than 48 hours.

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**REFERENCE:**

WTIA Technical Note No. 7 Health and Safety in Welding. ISO 11014:2009 "Safety data sheet for chemical product - Content and order of sections" United Nations (UN) "Globally harmonized system of classification and labelling of chemicals (GHS)"

**DATE OF ISSUE:** 2020.08.27

**DISCLAIMER:**

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