SAFETY SPECIFICATION SHEET

According to 91/155/EWG

Trade mark: Bright Metal Cleaner, Passivation Layer Solution.

Use: to passivate surfaces of stainless steel

Manufacturer/supplier: Mulyamandiri Jaya Sentosa

Citra Raya F2/1 Cikupa – Tangerang Telp.: 021-59401703 Indonesia Fax: 021-59402746

In case of emergency : Head of laboratory dept.

1. Chemical constituent: mixed acid product

CAS-No.	Specification	EG-No.	Index-No.	MAK
7697-37-2	Passivation solution contains nitric acid as	231-714-2	007-004-001	25 mg/cum
	well as additive < 25%, mixed with demin			
	water.			
9016-45-9	Surface active agents, Wetting Agent			
	< 10 %			

2. Potential danger

Specification : C corrosive.

Special indication of danger to men and environment:

R 34 : causes burns

3. First Aid:

Remove soaked clothing immediately and remove the injured person from the zone of danger (attention: protect yourself).

After skin contact:

Wash immediately with plenty of soap and water, rinse well.

After inhaling:

Fresh air supply, resting position, keep warm, if necessary use respiration aid.

In case of unconsciousness resting or transporting in a lateral stable position.

Consult immediately a physician or medical officer.

After contecting the eyes:

Rinse the open eye for several minutes with running water and consult a physician.

After swallowing:

Drink a large quantity of water and supply fresh air. Consult immediately a physician.

4. Fire fighting measures :

Appropriate extinguishing agents:

CO2 extinguishing powder or water spray jet. Fight wider spread fire with water spray jet or alcohol resistant foam.

Special protective equipment note: a respirator.

closed containers in designated fire zones should be cooled with water to avoid their bursting.

5. Protection measures by unintentional escape:

Personal precautionary measures: none

Ecological measures:

Prevent from getting into canals, drains or sewage system. In case of damage at sea (ship or cargo) inform the local authorities.

Cleaning / absorption treatment :

Use a neutralization solution (f. i. soda lye, calcium hydroxide, alkali lye) after dilution with plenty of water. Keep the room ventilated.

6. Handling and storage:

Indication for safe handling:

Store in closed plastic containers, in a cool place with appropriate ventilation / exhaust and out of direct sunlight. Put them in a catching tub, be careful with the construction materials and the volumes.

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Protective personal equipment:

Keep away from food and drink. Remove soaked clothes immediately. Wash your hands before breaks or leaving for the day. If necessary use protective glasses (plastic glass) protective shield, rubber / plastic gloves, acid proof clothing and shoes.

7. Physical and chemical properties:

Form : Liquid
Colour : colourless
Smell : soft pungent

Change of state

Fusion point : not applicable (non-combustible)

Boiling point : approx 105 deg C

Flash point : not applicable (non-combustible)
Explosion hazard : not applicable (non-combustible)

pH-value : approx 1

Dencity : at $20 \text{ deg C} \quad 1,08-1,12 \text{ g/cm}3$

Solubility in water : 100 %

Stability and reactivity : hazardous decomposition product : nitric gas, stable at ambient

8. Toxicity : acute, life-threatening

Pimary irritations: skin/musoca: soft irritation

Eyes : severe caustic burns

When swallowed: caustic burns in mouth and throat, danger of perforation of oesophagus and stomach. After inhalation: danger of pulmonary oedema with a latency

period of up to 24 hours.

9. Ecology : Marine pollutant-materials class 1

Do not let it undiluted / unneutralised into canals, drains or sewage system. The toxic effect for fish and bacteria start with a pH-value under 6 and increases with a smaller pH-value.

10. Disposal : Recommendation

Disposal of a used acid solution by neutralizing with a calcium hydroxide solution in an appropriate container.

Filter the resulting neutral slush and dispose it according to government regulations. Waste key number: 51309

11. Transportation regulations : Mixed passivation product contains nitric acid as well as additive.

Overland transportation ADR/RID and GGVS/GGVE (across the borders / inland), Naval transportation IMDG/GGVSea

ADR/RID – GGVS/E class : 8 corrosive material

And IMDP/GGVSea-class

UN-Number : 2031
Packing group : II
EmS-Number : F-A, S-B
MFAG : (700)

Air transportation ICAO –TI and IATA DGR

ICAO / IATA - class: 8

UN/ID – Number : UN 2031 Packing group : II

Technical name : Mixture of passivation, additive, surface active, thickener Agent.

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12. Identification according to EU regulations : C corrosive

R34 : Causes severe burns

S 1/2 : Keep locked up and out of reach of children

S 7/9 : Keep container tightly closed and in a well ventilated place

S 23 : Do not breathe gas/fumes/vapour/spray.

S 26 : In case of contact with eyes, rinse immediately with plenty of water

and seek medical advice.

S 27 : Take off immediately all contaminated clothing

S 36/37/39 : Wear suitable protective clothing, gloves and eye / face protection S 45 : In case of accident or if you feel unwell, seek medical advice

immediately (show the lable where possible).

13. Other general information:

The indications in this safety specification sheet are based on our present level of knowledge and according to national and EU legislation.

Do not use the product for other purposes than those mentioned above without written permission. We have neither knowledge nor control of the actual working conditions of the user. The user is responsible for meeting all the necessary legal conditions. This safety specification sheet describes the safety requirements for our product. It is not an assurance of the product's properties nor is it valid as a basis for contractual legal relation.