SAFETY SPECIFICATION SHEET

According to 91/155/EWG

Trade mark :	Bright Metal Cleaner, General Surface Cleaner.				
Use :	to clean surface of refined 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
7664-38-2 7697-372	General cleaner contains nitric acid as well as additive $< 25\%$, mixed with demin		015-011-00-6 007-994-001	
9016-45-9	water.Surface active agents, Wetting Agent< 15 %			

2. Potential danger

Specification : Xi irritable, Xn harmful

Special indication of danger to men and environment :

R 20/21/22 : harmful by inhalation, in contact with skin and if swallowed

- R 36/38 : irritation to eyes and skin
- 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 : a respirator

Note : 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 :

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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.

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	: yellow / green
	Smell	: acidulous
	Change of state	:
	Fusion point	: not applicable (non-combustible)
	Boiling point	: ca 100 deg C
	Flash point	: not applicable (non-combustible)
	Explosion hazard	: not applicable (non-combustible)
	pH-value	
	Dencity	: at 20 deg C $1,10 - 1.16$ g/cm3
	Solubility in water	: 100 %
	Stability and reactivity	: hazardous decomposition product : none (when appropriately stored and handled.
8.	Toxicity	: acute.
0.	Pimary irritations :skin/m	

Pimary irritatio	ons : sk	skin/musoca		no irrita	no irritation						
	Ey	yes	:	soft cau	stic bur	ns					
	W	hen swallo	wed :	caustic	burns	in	mouth	and	throat,	danger	of
perforation of a	aconhagi	is and stom	nach								

perforation of oesophagus and stomach.

9. Ecology : Water dangerous-materials class 1 (self-classification) Do not let it get 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. 0. Disposal : Recommendation

10. Disposal : Recommendation Disposal of the used mineral acid mineral 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 : Name of the product : phosphorous acid and additive mixed product 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	: 1805
Packing group	: III
EmS-Number	: F-A, S-B
MFAG	: (700)
Technical name	: ACID CLEANER LIQUID

Air transportation ICAO –TI and IATA DGR ICAO / IATA – class : 8

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In case of emergency	Indonesia : Head of laboratory dept.	Fax : 021-59402746
UN/ID – Number Packing group Technical name	: 1805 : III : ACID CLEANER LIQUID	
12. Identification according R 20/21/22 R 36/38 S 7/9 S 26 S 27 S 36/37/39 S 45	 to EU regulations : Xi irritable, Xn harmful : Harmful by inhalation and contact with s : Irritation to eyes and skin : Keep container tightly closed and in a w : In case of contact with eyes, rinse immediate advice. : Take off immediately all contaminated c : Wear suitable protective clothing, gloves : In case of accident or if you feel unwell, immediately (show the lable where possi 	ell ventilated place diately with plenty of water clothing s and eye / face protection seek medical advice

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.