

SAFETY DATA SHEET

Universal Developer

RS REACH revision date 01/12/10

CP0173 v2.4 RS 690-849

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

Product: Universal developer
Article Number: RS 690-849
Application: For the manufacturing of Printed Circuit Boards

Supplier: RS Components Ltd,
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2. HAZARDS IDENTIFICATION

Harmful: Xn= May be Harmful to skin, especially if exposure is prolonged
May cause severe eye irritation
May cause irritation to respiratory system.

3. COMPOSITION / INFORMATION ON INGREDIENTS

No	Ingredient name	EINECS No:	CAS No:	Conc.(wt%)	Classification:
1	Sodium Metasilicate(Na ₂ SiO ₃)	229-912-9	6834-92-0		Xn, R36/37/38, R20,22

Legend: T+ = Very toxic, T= Toxic, C+ = Corrosive, Xn+ Harmful, Xi= Irritant, E= Explosive, O=Oxidising, F+= Extremely Flammable, F= High Flammable, N=Dangerous for the environment

4. FIRST AID MEASURES

SKIN CONTACT In case of contact with skin, rinse immediately with plenty of clean, flowing water
EYE CONTACT In case of contact with eyes, rinse immediately with plenty of clean, flowing water and see immediate Medical Attention.
INGESTION If ingested, drink copious amounts of fresh water and see immediate medical attention. Do promote vomiting.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA Use extinguisher suitable to the cause of the fire.

6. ACCIDENTAL RELEASE MEASURES

HANDLING PRECAUTIONS Small spillages may be flushed away with plenty of water to a drain or sewer
DISPOSAL ADVICE: Dispose of in accordance with local authority guidelines.
METHODS FOR CLEANING UP Small spillages may be flushed away with plenty of water to a drain or sewer

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS: Avoid contact with skin and eyes and avoid breathing dust.
USAGE PRECAUTIONS: Use glass, ceramic, plastics (not polycarbonate) or stainless steel vessels for working solutions.
STORAGE ADVICE: Keep the product dry. Store at ambient temperature, out of direct sunlight, sealed in the containers in which it is supplied, and away from strong acids and aluminium.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

PROTECTIVE EQUIPMENT



HAND PROTECTION
EYE PROTECTION
PROTECTIVE CLOTHING
CLOTHING PROTECTION

Wear Protective Rubber Gloves
Wear Protective Glasses.
Protective Dust Mask Required when handling.
Clothes may be protected with man-made fibre over-garments.

9. PHYSICAL AND CHEMICALS PROPERTIES

Melting Point / range:	880°C		
Boiling Point	Not applicable	Bulk Density:	0.86-0.96 grammes per cc
Vapour Pressure:	Not applicable	Evaporation rate	Not applicable
Viscosity	Not applicable	pH-VALUE, CONC. SOLUTION	Ph 12.5 (10g / L H ₂ O)
Air contamination limit	1.5mg per cubic metre, expressed as Ns ₂ O		

10. STABILITY AND REACTIVITY

FLASH POINT	Not applicable
IGNITION TEMPERATURE	Does not burn or help other materials to burn
EXPLOSION LIMITS	Not applicable
THERMAL DECOMPOSITION	Partial decomposition at very high temperatures.
HAZARDOUS THERMAL DECOMPOSITION PRODUCTS	Carbon dioxide (CO ₂)
HAZARDOUS REACTIONS	May react violently with strong acids May produce hydrogen in contact with aluminium
FURTHER INFORMATION	Will tend to corrode non-ferrous metals, notably aluminium & zinc.

11. TOXICOLOGICAL INFORMATION

Should not be ingested. Toxicity is low, but high alkalinity is likely to be harmful
 LD50 (Oral, rat) 1490mg / kg
 No know evidence of carcinogenicity, mutagenicity or reproductive toxicity

12. ECOLOGICAL INFORMATION

Acceleration of weed and algae growth by phosphates.

BIODEGRADABILITY Ready biodegradability by OECD 301E (ISO method 7287 - 1986(E).)

13. DISPOSAL INFORMATION

GENERAL REGULATIONS Always Dispose Of According To Local Government Regulations.

14. TRANSPORT INFORMATION

SHIPPING NAME: As commercial name.

UN Number	none	Packing Group:		ADR/RID:	none	
IMDG:	none	Packing Group:				
OAC/IATA:	none	Packing Group:				

15. REGULATORY INFORMATION

HAZARD SYMBOLS	Xn	Harmful	
R-PHRASES	R20/22 R36/37/38	Harmful by inhalation and if swallowed Irritating to eyes, respiratory system and skin	
S-PHRASES	S22 S24/25 S26 S28 S36/37	Do not breathe dust Avoid contact with skin and eyes In Case Of Contact With Eyes, Rinse Immediately With Plenty Of Water and Seek Medical Advice. After Contact With Skin Wash Immediately With Plenty Of Soap and Water Wear Suitable Protective Clothing And Gloves	

16. OTHER INFORMATION

Not suitable for domestic applications.

REACH MSDS

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