



T DEOXIDISER 29

INTRODUCTION

A strongly acidic, liquid product which, when diluted with water, will remove oxides and smut from aluminium and aluminium alloy surfaces. It is used by dip at ambient temperatures as a rapid preparation for aluminium extrusions, etc. prior to chromate or chromium phosphate Alocrom treatments, anodising or other finishing processes.

BENEFITS

- Chromate-free: reduced effluent problems.
- Rapid oxide and smut removal.
- Requires no heating in normal shop conditions.
- Forms no sludge or scale.
- Carry-over has minimal effect on subsequent Alocrom baths.

FLASHPOINT

None.

COVERAGE

The rate of consumption will depend on the degree of oxidation, the degree of carryover from alkaline etching baths, treatment bath concentration and draining efficiency of the jigged items. As a guide, the following range has proved reliable:

Heavy Oxide Removal:	25 – 35m ² /kilo T Deoxidiser 29
Light Oxide Removal:	50 – 70m ² / kilo T Deoxidiser 29.

APPLICATION

1. Degrease if necessary, either by
 - Solvent vapour with Triklone 'N' (MP0301), or,
 - Aqueous cleaning, normally with one of the following:
 - T Cleaner 79 (MP0019) - Deep etch cleaner.
 - Turco 4215 NC-LT (MP0159) - Aircraft approved.
 - T Cleaner 70 (MP0035) - Non-etching multi-metal.



2. Cold water rinse, if aqueous cleaning.
3. T Deoxidiser 29 dip until oxide or smut is removed (see NOTE below).
4. Cold water rinse (see RINSING below).

NOTES:

- (i) For certain applications, T Deoxidiser 29 can be used as supplied.
- (ii) When treating high silicon pressure die-castings, the time may best be restricted to 30 – 60 secs or avoided altogether, to avoid darkening the surface and the consequent formation of a less effective Alocrom coating.
- (iii) Similar short times are usually adequate to desmut work after caustic etching.
- (iv) Prolonged immersion times after the oxide/smut is removed will result in etching of the aluminium and a decrease in the economics of use.

BATH MAKE-UP

For every 1000 litres of bath:

1. Add approximately 600 litres of mains water.
2. Carefully add 40 – 80 litres of T Deoxidiser 29 (see CONTROL POINTS below).
3. Fill the bath to the operating level with mains water and stir thoroughly.

CONTROL POINTS

	Heavy Oxide	Light Oxide
Deoxidiser Strength % v/v	10	5
Pointage cm ³	9 – 12	4 – 6
Temperature °C	5 – 30	5 – 30
Time mins	0.5 – 3	0.3 – 3

BATH CONTROL/REPLENISHMENT

The bath is controlled by a Pointage Titration done routinely according to usage and after the bath has been brought to its normal level with water. For example a bath in continuous use should be tested and replenished at least daily but in occasional use only weekly or before use.



Pointage Titration: Measure 5 cm³ of the bath into a flask, dilute to approximately 100 cm³ with water and add 4 – 6 drops of Phenolphthalein Indicator solution. Titrate with 0.5M Sodium Hydroxide until the colour changes to a permanent pink.

Replenishment: Add 8 litres of T Deoxidiser 29 per 1000 litres of bath for each cm³ the titration is below the operating level.

RINSING

Rinse the work thoroughly with water in a tank fitted with a weir and continuously overflowed with mains water. This water should be cascaded back to the rinse tank following the aqueous cleaner – thus reducing the effects of acidity in the effluent.

EQUIPMENT

The T Deoxidiser 29 tank should be made of, or lined with, 316 stainless steel (EN58J), polypropylene or rigid PVC. Rinse tanks can be made of mild steel, preferably painted with a suitable paint. Guidance on suppliers of processing equipment may be obtained from our Sales Offices.

ENVIRONMENTAL CONSIDERATIONS

T Deoxidiser 29 contains no VOCs. The bath however is acid (Ph <2) and contains hydrofluoric acid. If it needs to be discarded, it is recommended that a contractor familiar with such products collect it. The rinse water may also exceed the pH limits (usually 6 – 10); its acidity will be reduced by blending with other less acid rinses, for instance by cascading it back to overflow the rinse tank after aqueous alkali cleaning. The final acidity can be checked using narrow range (3 – 7) pH papers. If still necessary, the acidity can be neutralised by careful additions of Alkaline Adjuster 1 (MP0134) en route to drain.

SAFETY

T Deoxidiser 29 is a strongly acid liquid containing less than 5% hydrofluoric acid. Before use, refer to the Product Safety Data Sheet.

DISPOSAL

Dispose of in accordance with local authority requirements.



PRODUCT FAMILIES

The following products are referred to in this data sheet.

PRODUCT NAME	PRODUCT NUMBER
T DEOXIDISER 29	MP0119-30
TRIKLONE N	MP0301
T CLEANER 79	MP0019
TURCO 4215 NC LT	MP0159
T CLEANER 70	MP0035

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