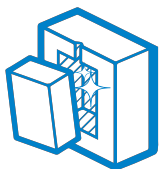




POLYMER PROCESSING



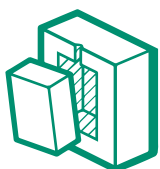
RELEASE AGENT



CLEANER



LUBRICANT

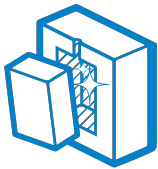


PROTECTION





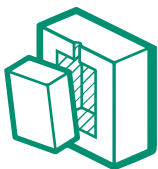
RELEASE AGENT



CLEANER



LUBRICANT



PROTECTION

CRC Industries is a worldwide supplier of chemical products for the industry, automotive and electro segments. The company consists of four operating groups headquartered in the United States, Belgium, the United Kingdom and Australia. CRC Industries Europe is ISO 9001 certified.

We manufacture and supply cleaners, lubricants, anti-corrosion products, adhesives, welding products, additives, moulding products and other specialty products...all for the European, African and Middle East areas.

We guarantee high quality products by following strict guidelines in all facets of research, development and production. We try to meet today's most stringent environmental and safety standards. Furthermore CRC develops new products and continues to adapt existing products to meet the needs of our customers.

For detailed product information, Technical Data and Material Safety Data, please consult our website:

www.crcind.com

“SEE FOR YOURSELF THAT CRC IS THE BEST SOLUTION!”

All statements in this publication are based on service experience and/or laboratory testing. Because of the wide variety of equipment and conditions and the unpredictable human factors involved, we recommend our products to be tested on-the-job prior to use. All information is given in good faith but without warranty neither expressed nor implied.

Note: The CRC product range is country-related. It is possible that some products, listed in the catalogue, might not be available. Product pictures not binding. Actual product may be different from picture due to change-over to new design.



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MY CRC

AUTOMATIC TDS & MSDS UPDATES



A service offered to CRC end-users and distributors as a means to automate the task of updating Technical Data Sheets (TDS) and Material Safety Data Sheets (MSDS), reducing the burden on staff having to remember, schedule, and undertake this HSE requirement.

By using My CRC, the end-user can ensure 100% compliance, automatically when there is a change to the datasheets, whether due to legislative changes such as hazard classifications or amendments to European law. These changes do not affect the product performance or availability, but in a highly regulated industry - up to date compliance is essential to avoid prosecution. The ongoing REACH legislation will affect all processors, distributors, and users of chemicals throughout Europe, however, many people are unaware of what this means. Using My CRC ensures that such changes will be incorporated into the MSDS and TDS, with updates sent automatically.

Offered through the CRC website (www.crcind.com) a simple registration process provides access to the complete CRC product range where selection of relevant products takes place - receive only relevant products updates.

The system remembers the selection, and will automatically generate an email notification when a significant change occurs to either the TDS or MSDS, keeping relevant management and user personnel up-to-date.

A unique service, making compliance easy!

- 24/7 availability on-line.
- Removes the potential to 'forget' to check for updates.
- Saves time & easy to use.
- Legislation changes frequently, do you always know when it has? Receive updates automatically in your mailbox.
- All information held securely.

MY CRC - Directions

1. Navigate to [**www.crcind.com/crc**](http://www.crcind.com/crc).
2. Click on the My CRC logo.
3. Select the link "New User".
4. Fill in company details.
5. The unique log-in ID and password will be emailed to you.
6. Enter the log-in ID and password on My CRC.
7. Once logged in, select the country from the drop-down list at the top of the page.
The complete list of CRC products will now be displayed - using the selection boxes on the right, both MSDS and TDS updates can be selected.
8. Please confirm your selection, My CRC instantly updates which boxes have been selected.
9. Once all products of interest have been selected, simply close your internet browser - the process is now finished.
10. If product selection needs to be modified, simply log-in to My CRC and change the update options (click on the My CRC logo to update email preferences).

Check out our new animated product videos!

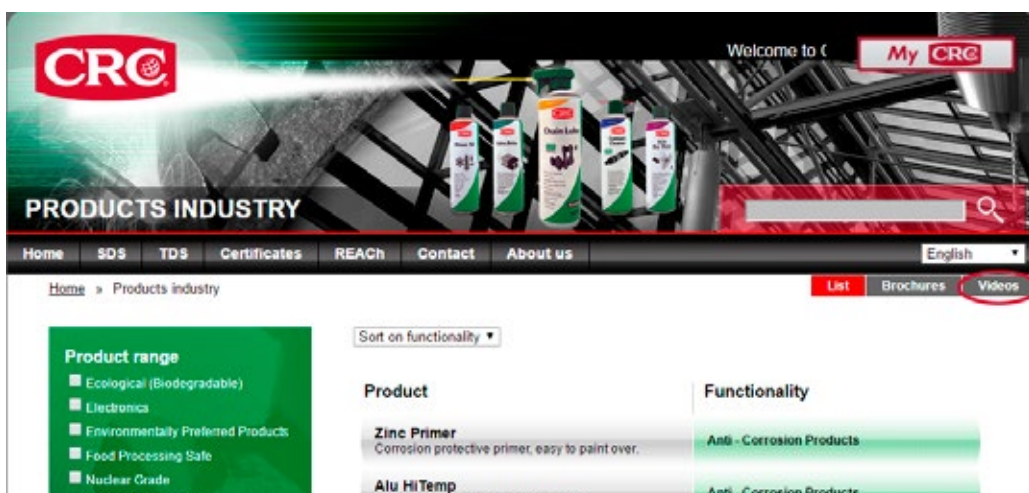
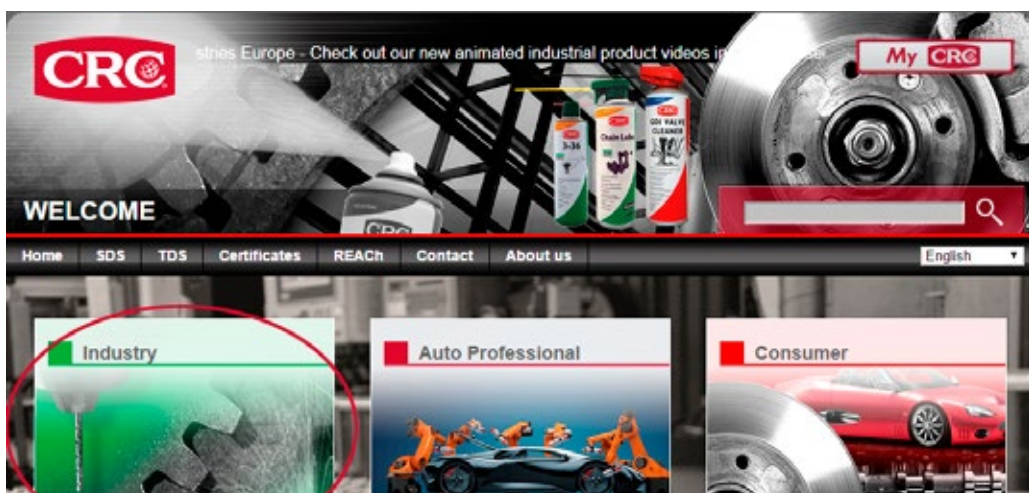


CRC INDUSTRIES EUROPE CAN NOW BE FOUND ON YOUTUBE!

Search for CRC Industries Europe on Youtube and you will be able to view all our new animated product videos! Subscribe to the channel and you will automatically receive updates on new videos!

OR FIND OUR ANIMATED MOVIES ON THE WEBSITE!

- Go to www.crcind.com
- Click on the Industry tab
- Click on videos



www.crcind.com

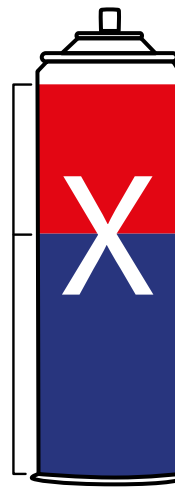


MORE PRODUCT, LESS PROPELLANT

We respect the environment and if it's technically possible, we fill the majority of our aerosols with CO₂. Besides the environmental aspect, this ensures you have $\pm 35\%$ more product.

Propane/butane
propellant

Active product

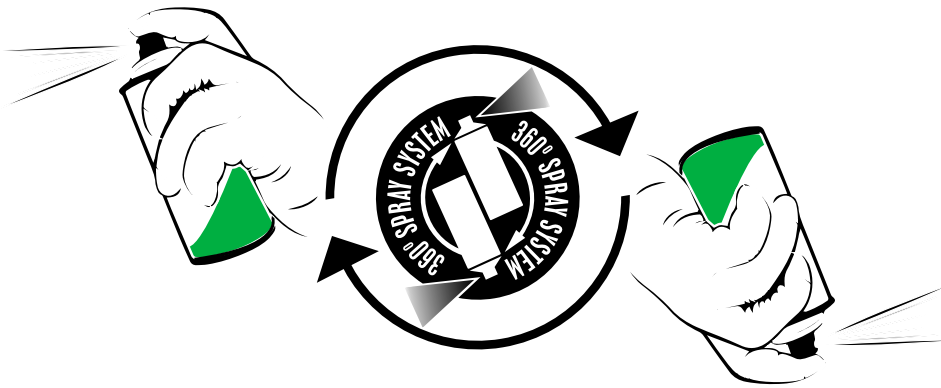


CO₂ propellant
Maximum 5%

Minimum 95%
Active product



360° SPRAY SYSTEM



MULTI-LANGUAGE CANS

- Depending on the market version, aerosol products display either 31 languages per can or 8 languages as standard.
- This ensures foreign employees can use products and understand risk phrases
- CRC products can be exported globally for international branches and end-users
- Reduces risk of workplace accidents or inappropriate use and improves user safety
- All SDS are available in up to 31 languages from www.crcind.com



NSF explained

NSF is an abbreviation for the National Sanitation Foundation, which was founded in 1944 as a not-for-profit, non-governmental organisation. NSF International is a global provider of public health and safety risk management solutions to companies, governments and consumers. In 1999, it launched its voluntary Nonfood Compounds Registration Program to re-introduce the previous authorisation program administered by the U.S Department of Agriculture (USDA). Product evaluation is based on formulation and label review. Products which comply with the relevant regulations and guidelines receive a registration letter and are included in the 'NSF White Book™ Listing of Proprietary Substances and Non-food Compounds'.

USDA

The USDA (United States Department of Agriculture) used to authorise the use of non-food compounds, including cleaning agents and lubricants, within the Food Industry sector. In 1999, this former authorisation program was reintroduced as a voluntary registration program by NSF International. USDA categories for lubricants: USDA H1 for incidental food contact USDA H2 for where there is no possibility of food contact.

CRC FPS (Food Processing Safe)

Depending on the application, all CRC FPS products are designed for use in the food processing areas. Restrictions might apply to products having double codes when used as a "general purpose" C I cleaner. All CRC FPS products are NSF registered.

Food contact

Only H1 lubricants can be used where incidental food contact is possible.

NSF Categories:

Lubricants

Used on food processing equipment as :

- anti-rust film (removal of film before re-using equipment)
- release agent on gaskets or seals of tank closures
- lubricant

H1 Lubricant with incidental food contact (in compliance with FDA 21 CFR, section 178.3570).

H2 Lubricant with no food contact.

Specialty

PI Miscellaneous.

MI Mould Release Agents

NON SILICONE BASED RELEASE AGENTS (NSR)

Non silicone based release agents



NSR WET

Wet Film



NSR DRY

Dry Film



NSR THERMO

High Temperature



NSR RUBBER



NSR SENSITIVE

Paintable Plastics



NSR ULTRA THIN

Minimum Product Transfer



NSR FLEX MOULD

RTV Mould



NSR FOOD

MI Registered



NSR WET

Heavy duty, non-silicone release agent

A wet film, non-silicone mould release agent that provides excellent release on a wide range of thermoplastics and thermoset materials.

- Will not interfere with post moulding operations such as painting, printing, bonding or plating
- Operational to +150°C
- Does not build up in the mould
- The wet film offers an excellent "slip" for complicated parts



Ref.	SIZE
32842	Aerosol 500 ml

NSR DRY

Medium duty, non-silicone release agent

A medium duty, dry film mould release agent. Does not contain silicone. Provides an easy release for all types of thermoplastics and especially silicone and rubber.

- Will not interfere with post moulding treatments such as painting, printing, bonding or plating
- Operational to +150°C
- Does not build up in the mould
- Limited transfer to the moulded parts



Ref.	SIZE
32841	Aerosol 500 ml

NSR THERMO

Semi-permanent non-silicone release agent

Non-silicone release agent formulated to release a wide variety of synthetic rubbers and many thermoplastics in high temperature transformation.

- Forms a thin, homogeneous, inert and thermally stable coating from which multiple releases can be expected
- Fast cure time. Moulding can commence ± 30 minutes after application
- Operational temperature to +250°C



Ref.	SIZE
32977	Aerosol 500 ml

NON SILICONE BASED RELEASE AGENTS (NSR)

NSR SENSITIVE

Non silicone based release agent for sensitive paintable plastics

Mould release agent for plastics and rubbers.

- Colorless film
- Will not interfere with post moulding treatments such as painting, printing, bonding or plating
- Operational temperature up to +150°C
- Offers an outstanding slip during release of stress crack sensitive polymers
- The first-rate slip allows complicated shapes to be released by fast shot

Ref.	SIZE
32960	Aerosol 500 ml
32964	Bulk 5 L



NSR ULTRA THIN

Non silicone based release agent with minimal product transfer

Balanced formulation to provide an excellent slip during demoulding without contaminating transparent surfaces by product transfer. Ideal for use with transparent plastics such as Polycarbonate, ABS and polyamides.

- Ideal for mould applications where fine details and precision are requested
- Will not stop post moulding operations (anti reflection coatings , gluing anti-fog screens,...)
- Contains Zinc Stearate which results in excellent slip properties

Ref.	SIZE
32962	Aerosol 500 ml



NSR RUBBER

Non silicone based release agent for rubbers

A water based release agent for use in a wide variety of rubber moulding operations.

- Used for the release of all natural and synthetic grades of rubber
- Fast curing with lower mould build-up
- Non-flammable and environmental 'safe'
- Does not affect the rubbers

Ref.	SIZE
32980	Bulk 25 kg



NSR FLEX MOULD

Mould release agent for epoxy, polyester and polyurethane resins

Air curing copolymer with good adhesion to RTV flexible moulds.

- Tough flexible film
- Protects the RTV mould against the aggressive cast resins
- Operational temperature up to +200°C
- Will not interfere with post moulding treatments such as painting, bonding, printing, ...



Ref.	SIZE
32976	Aerosol 400 ml

NSR FOOD

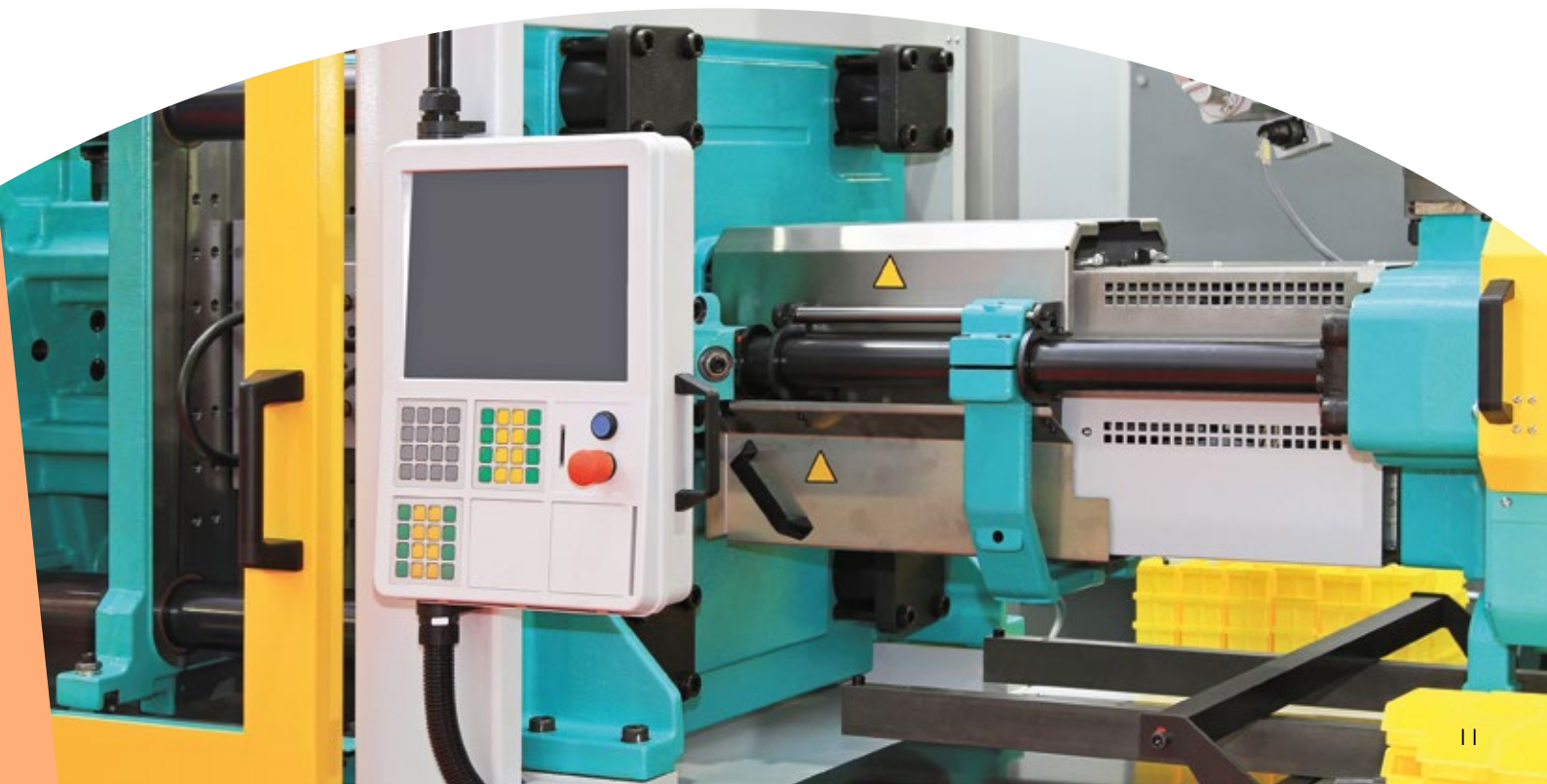
Food grade non-silicone based release agent

A non-silicone release agent with NSF registration for use during moulding of food contact plastic packaging.

- NSF registered M1
- Use on moulds for food packaging which is intended for direct food contact
- Will not interfere with post moulding operations such as bonding and labelling
- Translucent film
- Operational temperature to +200°C



Ref.	SIZE
32957	Aerosol 500 ml



SILICONE BASED RELEASE AGENTS (SR)

SR MULTI

General use silicone based release agent

A general purpose release agent for all thermoplastics and many types of rubber. It is highly versatile as a release agent, ensuring accurate mould detail and improving surface finish without building up in the mould.

- Improves surface finish, minimizes imperfections and enhances even well-polished tool release properties
- Operational to +200°C
- Can also be used as an anti-stick agent in the textile, foam converting and shoe industries
- Fabulous slip properties for fast demoulding
- Provides a smooth surface finish

Ref.	SIZE
32836	Aerosol 500 ml



SR SEMI PER

Semi-permanent silicone based release agent

Air curing silicone resin, used as polymer release agent on bigger surfaces.

- Excellent performance on rotational moulding production facilities
- Developed for rubbers, elastomers and thermosets
- Performs well as release agent for casting resins on flat bed and wet plastering applications

Ref.	SIZE
32958	Aerosol 500 ml



SR THERMO

Heavy duty silicone based release agent

Heavy duty, high silicone concentration, mould release agent.

- Specifically to be used on polyester and epoxy moulds
- Withstands the high temperatures (up to +200°C) during exothermic reactions of the resins
- Smooth surface finish
- Very good thixotropy

Ref.	SIZE
32978	Aerosol 500 ml
32969	Bulk 5 L



SR FOOD

Food grade silicone based release agent

A high purity silicone release agent for moulding of food contact plastic packaging.

- NSF registered M1
- Maximum operational temperature: +200°C
- Provides good brilliance at transparent plastics
- Excellent slip for uncomplicated release of light weight mouldings

Ref.	SIZE
32956	Aerosol 500 ml



LOST WAX RELEASE

Paintable mould release agent

Ideal for lost wax moulding and precision moulding.

- Based on a copolymer
- Silicone residues on the casting can be rinsed away with water
- Will not interfere with post moulding treatments such as painting, printing, bonding or plating



Ref.	SIZE
32954	Aerosol 500 ml

PU RELEASE AGENT

Silicone based release agent for polyurethanes (PU)

A silicone release agent formulated as a fine release film for integral skin and elastomeric polyurethanes.

- High quality, high gloss and excellent surface finish
- Colorless
- Operational temperature to +200°C
- No build up on mould surface



Ref.	SIZE
32959	Aerosol 500 ml

RELEASE EMULSION

Ready to use water-based silicone emulsion release agent

Releases many types of plastic and rubber, especially PVC and rubber profile extrusions.

- Economical in use and environmentally 'safe & friendly'
- Operational temperature up to +150°C



Ref.	SIZE
32979	Bulk 5 kg

Thermoplastics

Process Plastics	Rotational moulding	Extrusion blow moulding	Vacuum forming	Lost wax	Injection moulding
ABS	SR Semi Per	SR Hi Temp	NSR Wet	Lost Wax Release	NSR Ultra Thin
PA					SR Hi Temp
PC					SR Hi Temp
PE					NSR Sensitive
PET					SR Multi
PLA					NSR Ultra Thin
PMMA					SR Multi
POM					SR Multi
PP					SR Multi
PS					SR Multi
PVC					NSR Rubber

When other criteria then plastic & process are involved and considered important, the first selection has to be finetuned with the help of the technical datasheets.

Thermosets

Process Plastics	Lost wax	Extrusion profile & sheets	Resin transfert moulding	Pultrusion	Flat bed moulding
UP	NSR Thermo	NSR Thermo	SR Thermo	NSR Thermo	NSR Dry
AMC			NSR Thermo		
EP			SR Thermo		
FUR			NSR Thermo		
M					
PF	NSR Thermo	NSR Thermo	NSR Thermo	NSR Thermo	PU Release Agent
PU	PU Release Agent	PU Release Agent	PU Release Agent	PU Release Agent	
VE	NSR Thermo	NSR Thermo	NSR Thermo	NSR Thermo	
neoprene		Release Emulsion			

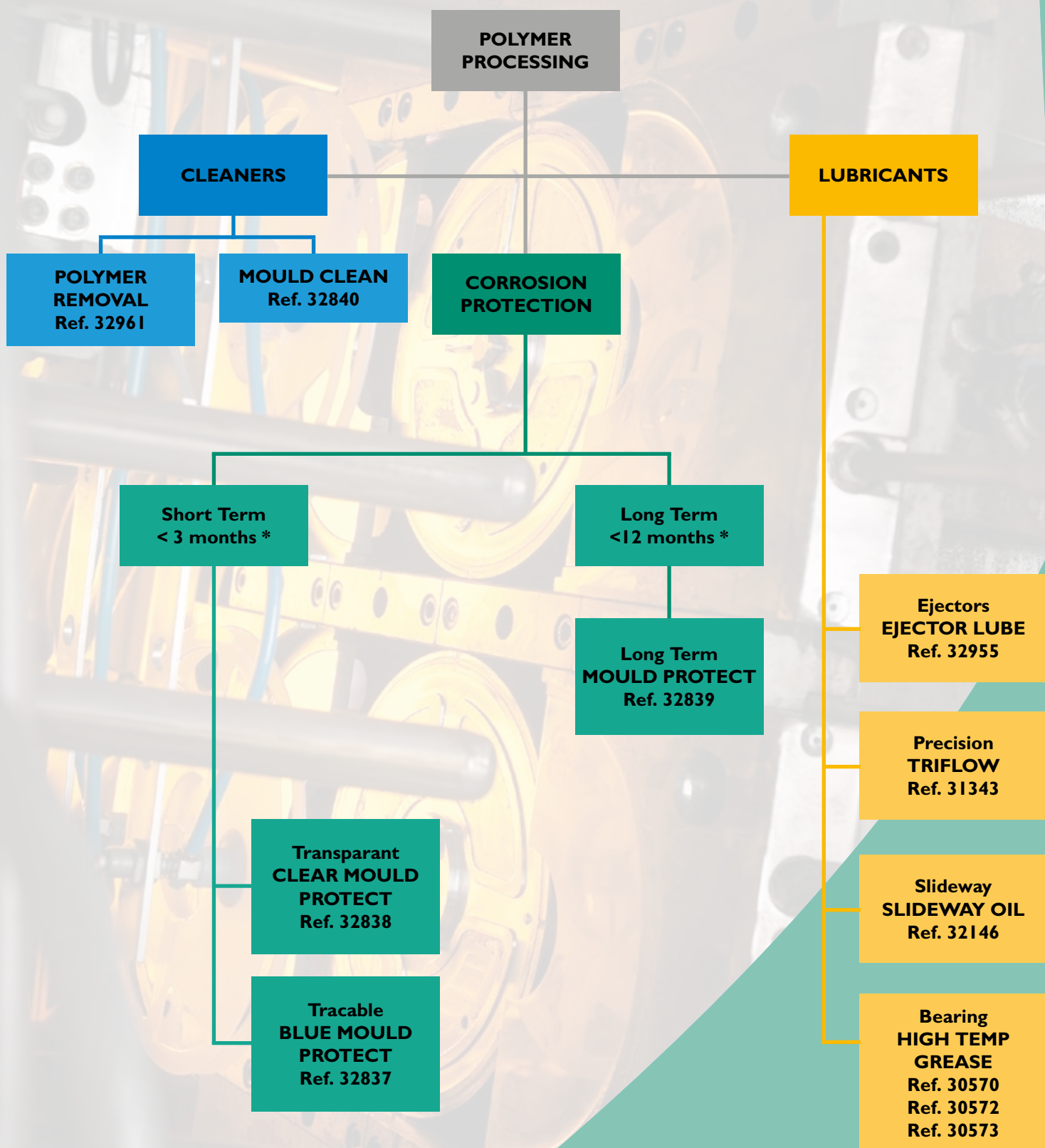
When other criteria then plastic & process are involved and considered important, the first selection has to be finetuned with the help of the technical datasheets.

Injection gas moulding	Injection blow moulding	Injection stretch blowing	Thermo-forming	Insert moulding	Extrusion profile & sheets
NSR Ultra Thin	NSR Ultra Thin	NSR Ultra Thin			
	NSR Ultra Thin	NSR Ultra Thin			
NSR Sensitive	NSR Sensitive	NSR Sensitive	NSR Food	NSR Sensitive	
NSR Food	SR Food	NSR Sensitive	SR Food	NSR Sensitive	
NSR Ultra Thin	NSR Food				
NSR Food			NSR Food	NSR Sensitive	
NSR Rubber	SR Food	NSR Rubber	SR Food	NSR Rubber	Release Emulsion

Glossary Plastics

	Code	Chemical name	Mould Temp. [°C]
THERMOPLASTICS	ABS	Acrylonitrile Butadiene Styrene	85
	PS	Polystyrene	82
	PC	Polycarbonate	93
	PP	Polypropylene	60
	PVC	Polyvinyl Chloride	rig 60 / flex 82
	PE	Polyethylene (LD=Low Density, HD=High Density)	LD 27 / HD 43
	PA	Polyamide (Nylon)	204
	PET	Polyethylene Terephthalate	99
	PMMA	Acrylic	65
	POM	Polyoxymethylene	
	PLA	Polylactid Acid	
THERMOSETS	UP	Unsaturated Polyester	Temperature triggered chemical reaction
	AMC	Alkyd	
	EP	Epoxies	
	FUR	Furan	
	M	Melamine (MF, UF)	
	PF	Phenolics	
	PU	Polyurethane	
	VE	Vinyl Esters	

SELECTION GUIDE POLYMER INDUSTRY



*Depending on environmental circumstances.

MOULD CLEAN

General cleaner for mould tools

A powerful solvent blend formulated to remove a wide range of common soiling from moulds, tools and dies.

- Quickly and easily removes oils, grease, old protective films
- Perfect for removing old release agents. Takes away old build ups in the mould
- Leaves a clean, dry and residue free surface
- Dissolves residues of polymers



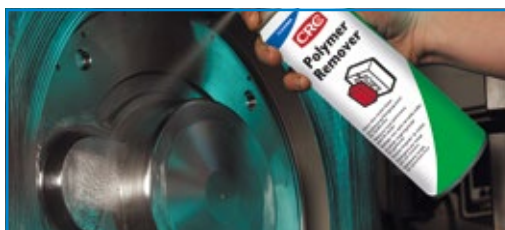
Ref.	SIZE
32840	Aerosol 500 ml

POLYMER REMOVER

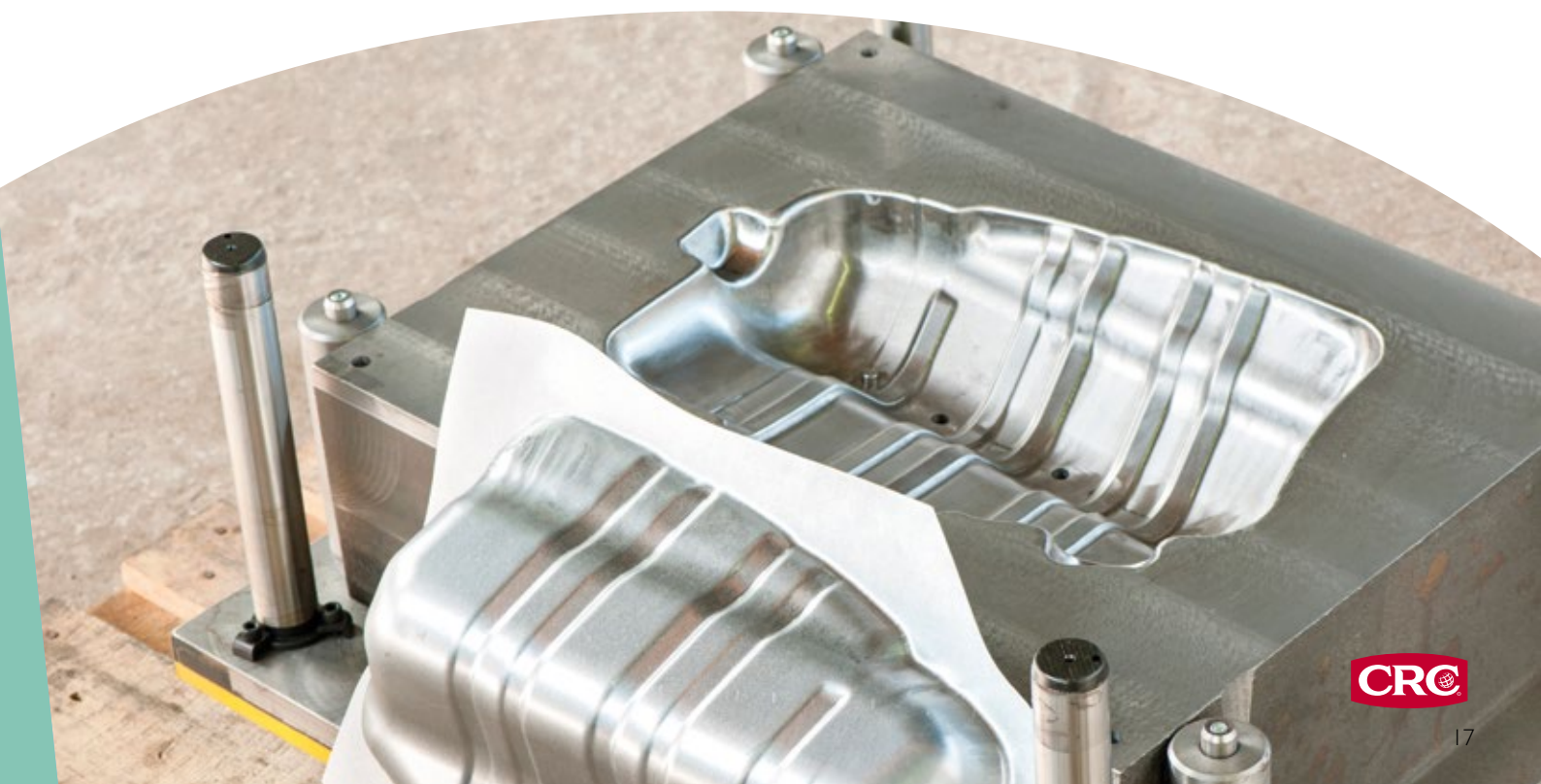
Heavy duty mould cleaner

Highly effective and powerful solvent blend developed for use on heavily soiled moulds and dies to remove a variety of moulding deposits.

- Foaming action which clings to the mould surface and facilitates a good contact with the contamination
- Removes: plastics, rubbers and resin residues, even when carbonized
- Thixotropic formulation for maximum efficiency, even on vertical surfaces
- Leaves a clean and dry surface after application



Ref.	SIZE
32961	Aerosol 400 ml



EJECTOR LUBE

Long lasting high performance lubricant with PTFE for ejector pins

Ejector lube has exceptional lubricating power, even under extreme conditions: high temperatures, high pressures, high linear speeds.

- Eliminates seizing problems of ejectors or drawers
- Eliminates creeping of greasy products and contamination on the aesthetic side of moulded parts
- Promotes gas tightness on the ejector level
- Does not carbonize, leaving black imprints on the finished part



Ref.	SIZE
32955	Aerosol 250 ml



TRIFLOW

Durable general lubricant

Multipurpose fluid with PTFE for mould and precision mechanism.

- Penetrates into hard-to-reach areas, displaces moisture and cleans
- Contains micro particles of PTFE
- Durable lubrication thanks to its high quality oils, extreme pressure additives and solid (PTFE) lubricants
- Protects against corrosion and humidity
- Seals out dirt, dust, sand and other abrasive particles



Ref.	SIZE
31343	Aerosol 400 ml



HIGH TEMP GREASE

Lithium EP grease for low speed, high load applications with exposure to high temperatures

- -30°C to +200°C.
- Ideal for long-term lubrication of rolling-element and sliding-contact bearings



Ref.	SIZE
30570	Tube 100 ml
30572	Cartridge 400 g
30573	Bulk 1 kg

SLIDEWAY OIL

Low viscosity oil for high speed spindle and slide ways lubrication.

Low viscosity, good affinity to metals, excellent water resistance, reduces stick and slip problems, high load capacity, thin durable lubricating film.

Applications:

Guide rails, adjustment mechanisms, ball-joints, rotating positioning surfaces.



Ref.	SIZE
32146	Aerosol 500 ml



MOULD PROTECT

Long term waxy corrosion protection

Non silicone corrosion protection for moulding tools and dies. Repels and displaces moisture, leaving a durable, high quality protective wax-like film. Long-lasting efficient protection.

- Ideal for mould tools, dies and parts stored for indefinite period
- High covering, translucent film
- Displaces humidity on metal surfaces
- Resists to the affects of condensation due to big temperature changes in the storage place
- Silicone free



Ref.	SIZE
32839	Aerosol 500 ml

BLUE MOULD PROTECT

Short term blue colored corrosion inhibitor for mould tools

Non silicone corrosion protection for moulding tools. NSF registered for use in food packaging industry.

- NSF registered H2
- Ideal for short-term inactivity of mould tools, dies and jigs
- Highly visible blue dye provides an easy visual method for ensuring complete coverage
- Displaces humidity on metal surfaces
- Silicone-free
- No need for cleaning as the product moulds off during the first cycles



Ref.	SIZE
32837	Aerosol 500 ml

CLEAR MOULD PROTECT

Short term clear corrosion inhibitor for mould tools

Non silicone corrosion protection for moulding tools. NSF registered for use in food packaging industry.

- NSF registered H2
- Ideal for short-term inactivity of mould tools, dies and jigs
- Will weaken carbonized polymer residues, during the inactivity time
- Displaces humidity on metal surfaces
- Silicone-free
- No need for cleaning as the product moulds off during the first cycles



Ref.	SIZE
32838	Aerosol 500 ml

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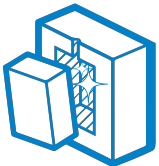


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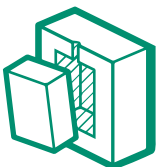
RELEASE AGENT



CLEANER



LUBRICANT



PROTECTION

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