

Δελτίο δεδομένων ασφαλείας
σύμφωνα με τους Κανονισμούς 1907/2006/EK (REACH) Άρθρο
31, τον (ΕΕ) 2015/830 και τον 1272/2008/EK (CLP)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

ΤΜΗΜΑ 1: Αναγνωριστικός κωδικός ουσίας/μείγματος και εταιρείας/επιχείρησης

1.1 Αναγνωριστικός κωδικός προϊόντος

Όνομασία του προϊόντος στο εμπόριο: κολοφώνιο

Αριθμός CAS:

8050-09-7

Αριθμός EC:

232-475-7

Αριθμός ευρετηρίου:

650-015-00-7

Αριθμός καταχώρισης REACH: 01-2119480418-32-0053

1.2 Συναφείς προσδιοριζόμενες χρήσεις της ουσίας ή του μείγματος και αντενδεικνυόμενες χρήσεις

Παραγωγή ουσίας

Τυποποίηση

Χρήση σε βιομηχανικό χώρο

Διανομή

Χρήση σαν ενδιάμεσο

Χρήση στα επιχρίσματα

Χρήση στο εργαστήριο

Παραγωγή πολυμερών

Επεξεργασία πολυμερών

Παραγωγή και επεξεργασία λάστιχου

Χρήση σε καθαριστικά

Χρήση σε συνδετικά και παράγοντες απελευθέρωσης

Χρήση σαν καύσιμο

Χρήση στην χαρτοποιία

Χρήση από επαγγελματίες χρήστες

Χρήση στα επιχρίσματα

Επεξεργασία πολυμερών

Χρήση σε καθαριστικά

Χρήση σε συνδετικά και παράγοντες απελευθέρωσης

Χρήση σαν καύσιμο

Χρήση στο εργαστήριο

Οδοποιία και κατασκευαστικές εφαρμογές

Χρήση στα αγροχημικά

Καταναλωτικές χρήσεις

Χρήση στα επιχρίσματα

Αγροχημικά

Χρήση σε καθαριστικά

Χρήση σαν καύσιμο

Λοιπές καταναλωτικές χρήσεις

Λιπαντικά

Τομέας χρήσης

SU3 Βιομηχανικές χρήσεις: Χρήσεις ουσιών σε καθαρή μορφή ή σε παρασκευάσματα σε βιομηχανικές εγκαταστάσεις

SU8 Μεταποίηση χύμα χημικών προϊόντων, μεγάλης κλίμακας (συμπεριλαμβανομένων των προϊόντων πετρελαίου)

SU9 Μεταποίηση ευγενών χημικών ουσιών

SU10 Τυποποίηση [ανάμειξη] παρασκευασμάτων και/ή επανασυσκευασία (εκτός κραμάτων)

SU6b Παραγωγή χαρτοπολτού, κατασκευή χαρτιού και προϊόντων από χαρτί

SU22 Επαγγελματικές χρήσεις: Δημόσιος τομέας (διοίκηση, εκπαίδευση, ψυχαγωγία, υπηρεσίες, τεχνίτες)

(συνέχεια στη σελίδα 2)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφώνιο

(συνέχεια από τη σελίδα 1)

Κατηγορία χημικού προϊόντος

- PC1 Συγκολλητικά μέσα, στεγανωτικά
- PC4 Αντιπηκτικά και αντιπαγωτικά προϊόντα
- PC8 Βιοκτόνα προϊόντα
- PC9a Επιχρίσματα και βαφές, αραιωτικά, υλικά αφαίρεσης βαφής
- PC9b Υλικά πλήρωσης, στόκοι, γύψος, πλαστικός πηλός
- PC9c Δακτυλομπογιές
- PC15 Προϊόντα επεξεργασίας μη μεταλλικών επιφανειών
- PC18 Μελάνη και τόνερ
- PC23 Προϊόντα κατεργασίας δέρματος
- PC24 Λιπαντικά, γράσα, προϊόντα απελευθέρωσης
- PC31 Μείγματα στιλβωτικών ουσιών και κεριών
- PC34 Βαφές υφασμάτων και προϊόντα εμποτισμού
- PC12 Λιπάσματα
- PC27 Φυτοπροστατευτικά προϊόντα
- PC3 Προϊόντα εξυγίανσης αέρα
- PC35 Προϊόντα έκπλυσης και καθαρισμού (συμπεριλαμβανομένων των προϊόντων με βάση διαλύτες)
- PC38 Προϊόντα συγκόλλησης και κασσιτεροκόλλησης, προϊόντα επενδεδυμένα με συλλίπασμα
- PC13 Καύσιμα
- PC28 Αρώματα, αρωματικά
- PC39 Καλλυντικά, προϊόντα ατομικής φροντίδας

Κατηγορία διαδικασίας

- PROC1 Παραγωγή ή διύλιση χημικών ουσιών υπό κλειστή διαδικασία χωρίς την πιθανότητα έκθεσης, ή διαδικασίες με αντίστοιχες συνθήκες περιορισμού.
- PROC2 Παραγωγή ή διύλιση χημικών ουσιών υπό κλειστή συνεχόμενη διαδικασία με περιστασιακή ελεγχόμενη έκθεση ή διαδικασίες με αντίστοιχες συνθήκες περιορισμού
- PROC3 Παρασκευή ή τυποποίηση στη χημική βιομηχανία, με διαδικασίες ασυνεχούς ροής και περιστασιακή ελεγχόμενη έκθεση ή διαδικασίες με αντίστοιχες συνθήκες περιορισμού
- PROC4 Παραγωγή χημικής ουσίας όπου υφίσταται πιθανότητα έκθεσης
- PROC8a Μεταφορά ουσίας ή μείγματος (φόρτωση και εκφόρτωση) σε μη ειδικές εγκαταστάσεις
- PROC8b Μεταφορά ουσίας ή μείγματος (φόρτωση και εκφόρτωση) σε ειδικές εγκαταστάσεις
- PROC15 Χρήση ως εργαστηριακού αντιδραστηρίου
- PROC5 Ανάμειξη ή ενσωμάτωση σε διαδικασίες ασυνεχούς ροής
- PROC9 Μεταφορά ουσίας ή μείγματος σε μικρούς περιέκτες (ειδική γραμμή πλήρωσης, συμπεριλαμβανομένης της ζύγισης)
- PROC14 Δισκιοποίηση, συμπίεση, εξώθηση, πελλετοποίηση, κοκκοποίηση
- PROC7 Βιομηχανικός ψεκασμός
- PROC10 Εφαρμογή με ρολό ή με πινέλο
- PROC13 Επεξεργασία προϊόντων με εμβάπτιση και έκχυση
- PROC6 Εργασίες λείανσης
- PROC21 Χειρισμός και διαχείριση χαμηλής ενέργειας ουσιών δεσμευμένων μέσα ή πάνω σε υλικά ή αντικείμενα
- PROC16 Χρήση καυσίμων
- PROC11 Μη βιομηχανικός ψεκασμός
- PROC19 Χειρωνακτικές δραστηριότητες που περιλαμβάνουν την επαφή με τα χέρια

Κατηγορία απελευθέρωσης στο περιβάλλον

- ERC1 Παρασκευή της ουσίας
- ERC2 Τυποποίηση μέσα σε μείγμα
- ERC4 Χρήση μη αντιδραστικού βοηθήματος μεταποίησης σε βιομηχανική εγκατάσταση (δεν ενσωματώνεται μέσα ή πάνω σε αντικείμενο)
- ERC5 Χρήση σε βιομηχανική εγκατάσταση που οδηγεί σε ενσωμάτωση μέσα/πάνω σε αντικείμενο

(συνέχεια στη σελίδα 3)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφόνιο

(συνέχεια από τη σελίδα 2)

- ERC6a Χρήση ενδιάμεσου προϊόντος
ERC6b Χρήση αντιδραστικού βοηθήματος μεταποίησης σε βιομηχανική εγκατάσταση (δεν ενσωματώνεται μέσα ή πάνω σε αντικείμενο)
ERC6c Χρήση μονομερούς σε διαδικασίες πολυμερισμού σε βιομηχανική εγκατάσταση (ενσωματώνεται ή δεν ενσωματώνεται μέσα/πάνω σε αντικείμενο)
ERC6d Χρήση δραστικού ρυθμιστή μεταποίησης σε βιομηχανική εγκατάσταση (ενσωματώνεται ή δεν ενσωματώνεται μέσα/πάνω σε αντικείμενο)
ERC7 Χρήση λειτουργικού υγρού σε βιομηχανική εγκατάσταση
ERC8a Ευρεία χρήση μη αντιδραστικού βοηθήματος μεταποίησης σε βιομηχανική εγκατάσταση (δεν ενσωματώνεται μέσα ή πάνω σε αντικείμενο)
ERC8c Ευρεία χρήση που οδηγεί σε ενσωμάτωση μέσα/πάνω σε αντικείμενο (εσωτερική)
ERC8d Ευρεία χρήση μη αντιδραστικού βοηθήματος μεταποίησης σε βιομηχανική εγκατάσταση (δεν ενσωματώνεται μέσα ή πάνω σε αντικείμενο, εξωτερική χρήση)
ERC8f Ευρεία χρήση που οδηγεί σε ενσωμάτωση μέσα/πάνω σε αντικείμενο (εξωτερική)
ERC9a Ευρεία χρήση λειτουργικού υγρού (εσωτερική)
ERC9b Ευρεία χρήση λειτουργικού υγρού (εξωτερική)
Χρήση του υλικού / της σύνθεσης Πρώτη Ύλη

1.3 Στοιχεία του προμηθευτή του δελτίου δεδομένων ασφαλείας

Παραγωγός/προμηθευτής:

ΧΗΜΙΚΑ ΚΑΛΟΓΕΡΟΠΟΥΛΟΣ Α.Ε.

Δ. Γούναρη 35

185 31 Πειραιάς

Τηλ: 210 4124518

Φαξ: 210 4101607

e-mail: info@kalochem.gr

website: www.kalochem.gr

1.4 Αριθμός τηλεφώνου επείγουσας ανάγκης:



Τηλ. Κέντρου Δηλητηριάσεων: +30 210 7793777 (Ελλάδα)

ΤΜΗΜΑ 2: Προσδιορισμός επικινδυνότητας

2.1 Ταξινόμηση της ουσίας ή του μείγματος

Ταξινόμηση σύμφωνα με τον κανονισμό (ΕΚ) αριθ. 1272/2008



GHS07

Skin Sens. 1 H317 Μπορεί να προκαλέσει αλλεργική δερματική αντίδραση.

2.2 Στοιχεία επισήμανσης

Επισήμανση σύμφωνα με τον κανονισμό (ΕΚ) αριθ. 1272/2008

Η ουσία ταξινομείται και επισημαίνεται σύμφωνα με τον κανονισμό CLP.

(συνέχεια στη σελίδα 4)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφώνιο

(συνέχεια από τη σελίδα 3)

Εικονογράμματα κινδύνου



GHS07

Προειδοποιητική λέξη Προσοχή

Επικίνδυνα συστατικά πρέπει να αναφέρονται στις ετικέτες:
κολοφώνιο

Δηλώσεις επικινδυνότητας

H317 Μπορεί να προκαλέσει αλλεργική δερματική αντίδραση.

Δηλώσεις προφυλάξεων

P261 Αποφεύγετε να αναπνέετε σκόνη/αναθυμιάσεις/αέρια/συγκεντρώσεις σταγονιδίων/ατμού/εκνεφώματα.

P280 Να φοράτε προστατευτικά γάντια/ προστατευτικά ενδύματα/μέσα ατομικής προστασίας για τα μάτια/το πρόσωπο/τα αυτιά.

P302+P352 ΣΕ ΠΕΡΙΠΤΩΣΗ ΕΠΑΦΗΣ ΜΕ ΤΟ ΔΕΡΜΑ: Πλύντε με άφθονο νερό και σαπούνι.

P333+P313 Εάν παρατηρηθεί ερεθισμός του δέρματος ή εμφανιστεί εξάνθημα: Συμβουλευθείτε/Επισκεφθείτε γιατρό.

P363 Πλύνετε τα μολυσμένα ενδύματα πριν τα ξαναχρησιμοποιήσετε.

P501 Διάθεση του περιεχομένου/περιέκτη σύμφωνα με τους τοπικούς/περιφερειακούς/εθνικούς/διεθνείς κανονισμούς.

2.3 Άλλοι κίνδυνοι

Αποτελέσματα της αξιολόγησης ABT και αΑαB

ABT: Μη εφαρμόσιμο

αΑαB: Μη εφαρμόσιμο

ΤΜΗΜΑ 3: Σύνθεση/πληροφορίες για τα συστατικά

3.1 Χημικός καθορισμός: Ουσίες

Αριθ. CAS, όνομα

8050-09-7 κολοφώνιο - 100 %w/w

Αριθμοί ταυτότητας προϊόντος

Αριθμός EC: 232-475-7

Αριθμός ευρετηρίου: 650-015-00-7

ΤΜΗΜΑ 4: Μέτρα πρώτων βοηθειών

4.1 Περιγραφή των μέτρων πρώτων βοηθειών

Γενικές οδηγίες:

Προστασία για το προσωπικό πρώτων βοηθειών:

Καμία ενέργεια δεν πρέπει να λαμβάνεται συμπεριλαμβανομένου οποιουδήποτε προσωπικού κινδύνου χωρίς την καταλληλή εκπαίδευση. Μπορεί να είναι επικίνδυνη η ανάνηψη στόμα με στόμα για το πρόσωπο που παρέχει βοήθεια.

μετά από εισπνοή:

Φροντίστε μεταφερθεί ο παθόντας σε καθαρό αέρα.

Κρατήστε τον παθόντα ζεστό, ξαπλωμένο και σε πλάγια θέση.

Εάν ο παθόντας δεν αναπνέει ή υπάρχει αρρυθμία της αναπνοής πρέπει να εφαρμοστεί

(συνέχεια στη σελίδα 5)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφώνιο

(συνέχεια από τη σελίδα 4)

τεχνητή αναπνοή ή να χορηγηθεί οξυγόνο από κατάλληλα εκπαιδευμένο προσωπικό. Μπορεί να είναι επικίνδυνη η ανάνηψη στόμα με στόμα για το πρόσωπο που παρέχει βοήθεια.

Διατηρείστε μία αναπνευστική δίοδο ανοιχτή. Χαλαρώστε την σφιχτή ενδυμασία, όπως γιακάδες, γραβάτες, ζώνες. Αναζητείστε ιατρική βοήθεια εάν οι δυσμενείς επιπτώσεις επιμένουν ή είναι σοβαρές. Εάν ο παθόντας είναι αναισθητός, τοποθετήστε τον σε θέση ανάνηψης και αναζητείστε άμεση ιατρική βοήθεια.

μετά από επαφή με το δέρμα:

Ξεπλύνετε την μολυσμένη επιδερμίδα με άφθονο νερό. Αφαιρέστε την μολυσμένη ενδυμασία και τα παπούτσια. Πλύνετε την μολυσμένη ενδυμασία σχολαστικά με νερό πριν την απομάκρυνση της ή φορέστε γάντια. Συνεχίστε να ξεπλένετε για τουλάχιστον 10 λεπτά. Αναζητείστε ιατρική βοήθεια. Σε περίπτωση εμφάνισης συμπτωμάτων αποφύγετε περεταίρω έκθεση. Πλύνετε την ενδυμασία πριν την επαναχρησιμοποίηση της. Πλύνετε τα παπούτσια σχολαστικά πριν την επαναχρησιμοποίηση τους.

μετά από επαφή με τα μάτια:

Ξεπλύνετε άμεσα τα μάτια με άφθονο νερό, ανασκώνοντας εναλλάξ τα πάνω και κάτω βλέφαρα. Ελέγξτε και αφαιρέστε εάν υπάρχουν τους φακούς επαφής. Συνεχίστε να ξεπλένετε για τουλάχιστον 10 λεπτά.

Αναζητείστε ιατρική βοήθεια σε περίπτωση που εμφανιστεί ερεθισμός.

Προσοχή κατά την πλύση των οφθαλμών, η εκτόξευση νερού με μεγάλη πίεση ενέχει κίνδυνο καταστροφής του κερατοειδούς, συμβουλευτείτε ένα γιατρό.

μετά από κατάποση:

Ξεπλύνετε το στόμα.

Αφαιρέστε την τεχνητή οδοντοστοιχία εάν υπάρχει. Μετακινήστε τον παθόντα στον καθαρό αέρα. Κρατείστε τον παθόντα ζεστό και ήρεμο. Εάν το υλικό έχει καταποθεί και ο παθόντας έχει τις αισθήσεις του, δώστε του να πιεί μικρή ποσότητα νερού. Σταματήστε εάν ο παθόντας νιώσει ναυτία καθώς υπάρχει ο κίνδυνος να κάνει εμετό. Μην προκαλείτε εμετό εκτός εάν το υποδείξει το ιατρικό προσωπικό. Εάν ο παθόντας κάνει εμετό κρατήστε το κεφάλι του χαμηλά για να αποφευχθεί ο κίνδυνος εισρόφησης. Αναζητείστε ιατρική βοήθεια εάν επιμένουν τα δυσμενή συμπτώματα ή είναι σοβαρά. Ποτέ μην δίνετε κάτι δια του στόματος σε αναισθητό άνθρωπο. Σε περίπτωση που ο παθόντας είναι αναισθητός τοποθετήστε τον σε θέση ανάνηψης και αναζητείστε άμεση ιατρική βοήθεια. Διατηρείστε μία αναπνευστική δίοδο ανοιχτή. Χαλαρώστε την σφιχτή ενδυμασία, όπως γιακάδες, γραβάτες, ζώνες.

4.2 Σημαντικότερα συμπτώματα και επιδράσεις, άμεσες ή μεταγενέστερες

Δεν διατίθενται άλλες σχετικές πληροφορίες.

4.3 Ένδειξη οποιασδήποτε απαιτούμενης άμεσης ιατρικής φροντίδας και ειδικής θεραπείας

Καμία συγκεκριμένη θεραπεία. Θεραπεύστε συμπτωματικά. Επικοινωνήστε με εξειδικευμένο κέντρο δηλητηριάσεων εάν έχουν καταποθεί ή εισπνευστεί μεγάλες ποσότητες.

ΤΜΗΜΑ 5: Μέτρα για την καταπολέμηση της πυρκαγιάς

5.1 Πυροσβεστικά μέσα

Κατάλληλα πυροσβεστικά μέσα:

CO₂, πυροσβεστική σκόνη ή εκτίναξη νερού υψηλής πίεσης.

Μεγάλη πυρκαγιά καταπολεμάται με βολή νερού υψηλής πίεσης.

Πυροσβεστικά μέσα που για λόγους ασφαλείας είναι ακατάλληλα: Νερό με πλήρη εκτίναξη

5.2 Ειδικοί κίνδυνοι που προκύπτουν από την ουσία ή το μείγμα

Καυσιμο στερεό το οποίο καίγεται. Λεπτόκοκκά σύννεφα σκόνης μπορεί να σχηματίσουν εκρηκτικά μείγματα με τον αέρα. Σε περίπτωση φωτιάς, εκκενώστε άμεσα την περιοχή πλησίον του συμβάντος.

Καμία ενέργεια δεν θα λαμβάνεται απο μη εκπαιδευμένο προσωπικό.

(συνέχεια στη σελίδα 6)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφόνιο

(συνέχεια από τη σελίδα 5)

5.3 Συστάσεις για τους πυροσβέστες

Ειδικός προστατευτικός εξοπλισμός:

Οι πυροσβέστες πρέπει να φορούν κατάλληλη προστατευτική ενδυμασία και αυτόνομη αναπνευστική συσκευή (SCBA) ολικής κάλυψης προσώπου θετικής πίεσης.

Περαιτέρω δηλώσεις:

Η σκόνη οργανικών υλικών όταν τεμαχίζεται σε λεπτούς κόκκους, ανεξαρτήτως σχήματος, και αιωρείται στον αέρα ή άλλα οξειδωτικά μέσα μπορεί να σχηματίζει εκρηκτικά μείγματα αέρα/σκόνης και να προκληθεί πυρκαγιά ή έκρηξη σκόνης (περιλαμβανομένων και δευτερογενών εκρήξεων). Η οδηγία ATEX καθορίζει ως καύσιμες σκόνες όσες έχουν διάμετρο μικρότερη από 500 μm. Όταν γίνεται επεξεργασία με εύφλεκτα υγρά/ατμούς /σταγονίδια, μπορεί να σχηματισθούν αναφλέξιμα (υβριδικά) μείγματα με τη σκόνη. Αναφλέξιμα μείγματα αυξάνουν το ρυθμό αύξησης της πίεσης κατά την έκρηξη και εν τέλει η ελάχιστη ενέργεια ανάφλεξης (MIE) θα είναι χαμηλότερη από την αντίστοιχη σε ένα μείγμα αέρα/σκόνης. Το κατώτερο όριο εκρηξιμότητας του μείγματος/ατμών σκόνης θα είναι χαμηλότερο από τα επί μέρους κατώτερα όρια ατμών/σταγονιδίων ή σκόνης. Για περισσότερες πληροφορίες συμβουλευτείτε το NFPA 77.

ΤΜΗΜΑ 6: Μέτρα για την αντιμετώπιση τυχαίας έκλυσης

6.1 Προσωπικές προφυλάξεις, προστατευτικός εξοπλισμός και διαδικασίες έκτακτης ανάγκης

Δεν θα λαμβάνεται καμία ενέργεια η οποία να περιλαμβάνει προσωπικό ρίσκο χωρίς την κατάλληλη εκπαίδευση. Εκκενώστε τη γύρω περιοχή. Απαγορεύστε την είσοδο σε απροστάτευτα και μη απαραίτητα πρόσωπα. Μην αγγίζετε ή περπατάτε πάνω σε χυμένο υλικό. Ελαχιστοποιήστε την αιωρούμενη σκόνη και εξαλείψτε όλες τις πηγές ανάφλεξης. Καθαρίστε τη διαρροή το συντομότερο δυνατό ακολουθώντας τις παρακάτω διαδικασίες. Μην αναπνέετε τη σκόνη. Φροντίστε για επαρκή αερισμό. Χρησιμοποιείστε αναπνευστική συσκευή εάν ο αερισμός δεν είναι επαρκής. Φορέστε ατομικό προστατευτικό εξοπλισμό (ανατρέξτε στο Τμήμα 8).

6.1.2 Για άτομα που προσφέρουν πρώτες βοήθειες

Απομακρύνετε τα απροστάτευτα πρόσωπα.

Τα άτομα που προσφέρουν πρώτες βοήθειες πρέπει να φορούν προστατευτική ενδυμασία, προστατευτικά γάντια, προστατευτικά γυαλιά και αναπνευστική συσκευή.

6.2 Περιβαλλοντικές προφυλάξεις

Αποφύγετε το διασκορπισμό του χυμένου υλικού, την απορροή στο έδαφος, σε αποχετευτικούς σωλήνες, σε υδάτινους αποδέκτες και υπονόμους. Ειδοποιήστε τις αρμόδιες αρχές σε περίπτωση που το προϊόν προκαλέσει περιβαλλοντική μόλυνση (αποχέτευση, υδάτινοι αποδέκτες, έδαφος ή αέρας).

6.3 Μέθοδοι και υλικά για περιορισμό και καθαρισμό

Εναποθέστε μολυσμένα υλικά ως επικίνδυνα απόβλητα κατά το σημείο 13.

Μικρή διαρροή: Μετακινήστε τους περιέκτες από τον χώρο που έγινε η διαρροή. Μην χρησιμοποιείτε σωλήνες αέρα για τον καθαρισμό. Ελαχιστοποιείστε το στεγνό καθάρισμα προκειμένου να αποφευχθεί η δημιουργία σύννεφου σκόνης. Σαρώστε την συσσωρευμένη σκόνη από τις επιφάνειες και απορρίψτε σε περιοχή κατάλληλη για απόρριψη χημικών. Χρησιμοποιείστε αντεκρηκτικό εξοπλισμό και εργαλεία που δεν δημιουργούν σπινθήρες. Πρέπει να χρησιμοποιούνται συστήματα απομάκρυνσης με κενό με αντεκρηκτικό μότερ. Απορρίψτε μέσω αδειοδοτημένου φορέα συλλογής αποβλήτων.

Μεγάλη διαρροή: Μετακινήστε τους περιέκτες από τον χώρο που έγινε η διαρροή. Προσεγγίστε την διαρροή από προσήνεμο μέρος. Αποτρέψτε την διαρροή του προϊόντος σε υπονόμους, υδροροές, υπόγεια και περιορισμένους χώρους. Αποφύγετε την δημιουργία σκόνης και αποτρέψτε την διασπορά της μέσω του αέρα. Μην χρησιμοποιείτε σωλήνες αέρα για τον καθαρισμό. Ελαχιστοποιείστε την στεγνή σάρωση προκειμένου να αποφευχθεί η δημιουργία σύννεφου σκόνης. Σαρώστε την συσσωρευμένη σκόνη από τις επιφάνειες και απορρίψτε σε περιοχή κατάλληλη για απόρριψη χημικών. Χρησιμοποιείστε αντεκρηκτικό εξοπλισμό και εργαλεία που δεν δημιουργούν σπινθήρες. Πρέπει να χρησιμοποιούνται συστήματα απομάκρυνσης με κενό με αντεκρηκτικό μότερ. Απορρίψτε μέσω αδειοδοτημένου φορέα συλλογής αποβλήτων.

(συνέχεια στη σελίδα 7)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφώνιο

(συνέχεια από τη σελίδα 6)

6.4 Παραπομπή σε άλλα τμήματα

Πληροφορίες για τον χειρισμό βλέπε κεφάλαιο 7.

Πληροφορίες για τον ατομικό προστατευτικό εξοπλισμό βλέπε κεφάλαιο 8.

Πληροφορίες για την απόρριψη βλέπε κεφάλαιο 13.

ΤΜΗΜΑ 7: Χειρισμός και αποθήκευση

7.1 Προφυλάξεις για ασφαλή χειρισμό

Χρησιμοποιείτε προσωπικό προστατευτικό εξοπλισμό όπως απαιτείται. Για περισσότερες πληροφορίες σχετικά με τον προστατευτικό εξοπλισμό ανατρέξτε στο Τμήμα 8.

Στις περιοχές που το προϊόν χρησιμοποιείται, αποθηκεύεται ή επεξεργάζεται, απαγορεύεται να τρώτε, πίνετε ή καπνίζετε. Οι εργαζόμενοι πρέπει να πλένουν τα χέρια τους και το πρόσωπο τους πριν φάνε, πιουν ή καπνίσουν. Τα άτομα με ιστορικό δερματικής ευαισθητοποίησης δεν πρέπει να απασχολούνται σε οποιαδήποτε εργασία περιλαμβάνει την επεξεργασία του προϊόντος. Τα άτομα με ιστορικό, δερματικής ευαισθητοποίησης, άσθματος, αλλεργιών ή χρόνιων ή υποτροπιάζουσων αναπνευστικών νόσων δεν πρέπει να απασχολούνται σε οποιαδήποτε εργασία περιλαμβάνει την επεξεργασία του προϊόντος. Αποφύγετε την επαφή με τα μάτια, το δέρμα και την ενδυμασία. Μην αναπνέετε τη σκόνη. Μην το καταπίνετε.

Οδηγίες για τον τρόπο προστασίας κατά της πυρκαγιάς και έκρηξης:

Κατά τη διάρκεια χρήσης αποφύγετε τη δημιουργία σκόνης και όλες τις πηγές ανάφλεξης (σπίθα ή φλόγα). Αποφύγετε τη συσσώρευση σκόνης. Χρησιμοποιείτε το σε συνθήκες επαρκούς αερισμού. Φορέστε κατάλληλη αναπνευστική συσκευή σε περίπτωση ανεπαρκούς αερισμού. Κρατήστε το προϊόν στον αρχικό περιέκτη ή σε κάποιο εναλλακτικό, εγκεκριμένο από συμβατό υλικό. Κρατήστε τον περιέκτη ερμητικά κλειστό όταν δεν χρησιμοποιείται το προϊόν. Ο ηλεκτρολογικός εξοπλισμός και τα φώτα πρέπει να είναι προστατευμένα έτσι ώστε να αποτρέπεται η επαφή της σκόνης με θερμές επιφάνειες, σπινθήρες ή άλλες πηγές ανάφλεξης. Λάβετε προστατευτικά μέτρα έναντι των ηλεκτροστατικών εκκενώσεων. Για να αποφύγετε την φωτιά ή την έκρηξη ανάγετε τον στατικό εξοπλισμό κατά την μεταφορά με γείωση και σύνδεση των περιεκτών και του εξοπλισμού πριν τη μεταφορά του προϊόντος. Οι άδειοι περιέκτες οι οποίοι περιέχουν υπολείμματα του προϊόντος μπορεί να είναι επικίνδυνοι. Μην επαναχρησιμοποιείται τους περιέκτες.

ΔΙΑΔΙΚΑΣΙΑ ΧΡΗΣΗΣ ΚΑΥΣΙΜΗΣ ΣΚΟΝΗΣ

Η καύσιμη σκόνη σε επαρκή συγκέντρωση μπορεί να δημιουργήσει εκρηκτικό μείγμα με τον αέρα. Οι υψηλές συγκεντρώσεις σκόνης πρέπει να αποφεύγονται. Ακολουθήστε το US NFPA Standard 654 " Πρότυπο για την πρόληψη της πυρκαγιάς ή την έκρηξη σκόνης από την παραγωγή, επεξεργασία και χρήση καύσιμων στερεών σωματιδίων" (Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids) ή το "UK HSE Guidance HSG 103, εγκεκριμένοι κώδικες πρακτικής (ACOPS) καθιερωμένοι για εκρηκτικές ατμόσφαιρες σύμφωνα με την Οδηγία 94/9/EK ATEX, η οποία καθορίζει τον εξοπλισμό και τα συστήματα προστασίας που χρησιμοποιούνται σε δυνητικά εκρηκτικές ατμόσφαιρες ή κάποια άλλη εθνική καθοδήγηση πάνω στον ασφαλή χειρισμό της καύσιμης σκόνης. Εκπαιδεύστε τους εργαζόμενους στην αναγνώριση και πρόληψη των κινδύνων σχετιζόμενων με καύσιμη σκόνη στη εγκατάσταση.

Ελαχιστοποιήστε την αιωρούμενη σκόνη και απαείψτε όλες τις πηγές ανάφλεξης.

Κρατήστε το προϊόν μακριά από τη θερμότητα, τις θερμές επιφάνειες τους σπινθήρες και τη φλόγα. Καθιερώστε καλές πρακτικές διαχείρισης. Απομακρύνετε την συσσωρευμένη σκόνη σε τακτική βάση με σάρωση αναρρόφησης ή με απαλό σκούπισμα προκειμένου να αποφευχθεί η δημιουργία σύννεφων σκόνης. Χρησιμοποιείτε συνεχή αναρρόφηση στα σημεία δημιουργίας σκόνης προκειμένου να συλλέξετε και να ελαχιστοποιήσετε την

(συνέχεια στη σελίδα 8)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφώνιο

(συνέχεια από τη σελίδα 7)

συσσωρευμένη σκόνη. Ιδιαίτερη προσοχή πρέπει να δοθεί σε μη φανερές οριζόντιες επιφάνειες προκειμένου να ελαχιστοποιηθεί ο κίνδυνος δευτερογενούς έκρηξης. Σύμφωνα με το πρότυπο NFPA 654, στρώματα σκόνης πάχους 1/32 in. (0,8mm) αρκούν για να γίνει άμεσος καθαρισμός της περιοχής.

Ελέγξτε τις πηγές στατικού ηλεκτρισμού. Αυτό το προϊόν ή συσκευασία από μόνη της μπορεί να συσσωρεύσει στατικά φορτία, που μπορεί να αποτελέσουν πηγή ανάφλεξης. Τα συστήματα χειρισμού στερεών πρέπει να είναι σχεδιασμένα σύμφωνα με τα εφαρμοστέα πρότυπα NFPA (συμπεριλαμβανομένων των 654 και 77) και άλλες εθνικές οδηγίες. Μην αδειάζετε το προϊόν κατευθείαν σε εύφλεκτο διαλύτη ή παρουσία εύφλεκτων ατμών. Ο χειριστής, η συσκευασία και όλα τα σκεύη πρέπει να γειωθούν με συστήματα γείωσης. Οι πλαστικές σακούλες και τα πλαστικά μέρη δεν μπορούν να γειωθούν και οι σακούλες με αντιστατική προστασία δεν προστατεύουν πλήρως έναντι της ανάπτυξης στατικών φορτίων. Οι πλαστικές σακούλες και τα πλαστικά δεν μπορούν να γειωθούν καθώς και οι αντιστατικοί σάκοι δεν προστατεύουν επαρκώς έναντι στην δημιουργία στατικών φορτίων.

7.2 Συνθήκες ασφαλούς φύλαξης, συμπεριλαμβανομένων τυχόν ασυμβίβαστων καταστάσεων

Τεχνικά μέτρα και συνθήκες αποθήκευσης: Αποθηκεύστε σε απομονωμένη και εγκεκριμένη περιοχή.

Απαιτήσεις για χώρους και δοχεία αποθήκευσης: Αποθηκεύστε μακριά από οξειδωτικούς παράγοντες.

Περαιτέρω δηλώσεις για τους όρους αποθήκευσης:

Αποθηκεύστε σε συμμόρφωση με τους τοπικούς κανονισμούς. Αποθηκεύστε το προϊόν στον αρχικό περιέκτη. Προστατεύστε από την απευθείας ηλιακή ακτινοβολία.

Αποθηκεύστε σε στεγνή, δροσερή και καλά αεριζόμενη περιοχή μακριά από ασύμβατα υλικά (Δείτε το Τμήμα 10), φαγητό και ποτό. Απαλείψτε όλες τις πηγές ανάφλεξης.

Κρατήστε το προϊόν μακριά από την θερμότητα, τις θερμές επιφάνειες, τους σπινθήρες και την φλόγα. Διατηρείτε τον περιέκτη ερμητικά κλειστό και σφραγισμένο μέχρι να χρησιμοποιήσετε το προϊόν. Οι περιέκτες που έχουν ανοιχθεί πρέπει να επανσφραγισθούν προσεκτικά και να διατηρούνται όρθιοι προκειμένου να αποτραπεί τυχόν διαρροή. Μην αποθηκεύετε σε μη σημασμένους περιέκτες. Χρησιμοποιείτε κατάλληλο περιβάλλον προκειμένου να αποφευχθεί η μόλυνση του περιβάλλοντος.

7.3 Ειδική τελική χρήση ή χρήσεις Δεν διατίθενται άλλες σχετικές πληροφορίες.

ΤΜΗΜΑ 8: Έλεγχος της έκθεσης/ατομική προστασία

8.1 Παράμετροι ελέγχου

Συστατικά στοιχεία με οριακές τιμές επαγγελματικής έκθεσης: εκκίπτει

DNELs

Εργαζόμενοι διά της εισπνοής συστηματικά αποτελέσματα μακροχρόνια έκθεση: 117 mg/m³

Εργαζόμενοι διά της δερματικής οδού συστηματικά αποτελέσματα μακροχρόνια έκθεση: 17 mg/kg bw/day

Γενικός πληθυσμός διά της εισπνοής συστηματικά αποτελέσματα μακροχρόνια έκθεση: 35 mg/m³

Γενικός πληθυσμός διά της δερματικής οδού συστηματικά αποτελέσματα μακροχρόνια έκθεση: 10 mg/kg bw/day

Γενικός πληθυσμός διά της κατάποσης συστηματικά αποτελέσματα μακροχρόνια έκθεση: 10 mg/kg bw/day

PNECs

Κολοφώνιο

PNEC νερού (γλυκό νερό): 0.0016 mg/l

PNEC νερού (θαλασσινό νερό): 0.00016 mg/l

PNEC νερού (διαλείπουσες απελευθερώσεις): 0.016 mg/l

PNEC εγκαταστάσεων επεξεργασίας λυμάτων: 1000 mg/l

PNEC ιζήματος (γλυκό νερό): 0.007 mg/kg

(συνέχεια στη σελίδα 9)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφόνιο

(συνέχεια από τη σελίδα 8)

PNEC ιζήματος (θαλασσινό νερό): 0.0007 mg/kg

PNEC έδαφους: 0.00045 mg/kg

Συμπληρωματικές υποδείξεις: Σαν βάση χρησιμοποιήθηκαν οι ισχύοντες κατάλογοι παρασκευάσματος.

8.2 Έλεγχοι έκθεσης

8.2.1 Κατάλληλοι μηχανικοί έλεγχοι:

Χειριστείτε το προϊόν με καλές βιομηχανικές πρακτικές και ασφάλεια. Χρησιμοποιείτε ενδυμασία εργασίας και γάντια προκειμένου να αποφευχθεί η μόλυνση κατά την χρήση.

8.2.2 Ατομικός εξοπλισμός προστασίας:

Γενικά μέτρα προστασίας και υγιεινής: Να αποφεύγετε την επαφή με τα μάτια και δέρμα.

Προστασία για την αναπνοή:



Κατάλληλη αναπνευστική προστασία για χαμηλότερες συγκεντρώσεις ή σύντομη έκθεση: Φίλτρο σωματιδίων μέσης απόδοσης για υγρά και στερεά σωματίδια. (πχ. EN 143 or 149, Type P2 or FFP2)

Προστασία για τα χέρια:



Προστατευτικά γάντια.

Υλικό γαντιών: Γάντια χημικής προστασίας (EN 374).

Χρόνος διείσδυσης του υλικού γαντιών:

Οι οδηγίες των κατασκευαστών γαντιών πρέπει να ακολουθούνται προσεκτικά λόγω των διαφορετικών τύπων γαντιών.

Κατάλληλα υλικά για παρατεταμένη και απευθείας επαφή είναι τα ακόλουθα (προτείνεται δείκτης προστασίας 6, χρόνος διείσδυσης >480 min σύμφωνα με το πρότυπο EN 374):

Νιτριλίου (0,4mm)

Χλωροπρενίου (0,5mm)

PVC (0,7mm) κ.α.

Συμπληρωματική σημείωση: Οι συγκεκριμένες προδιαγραφές είναι βασισμένες σε τεστ, βιβλιογραφικά δεδομένα και πληροφορίες από κατασκευαστές γαντιών ή έχουν παραχθεί από παρόμοιες ουσίες αναλογικά. Λόγω των διαφορετικών συνθηκών (πχ. θερμοκρασία) πρέπει να ληφθεί υπ' όψιν ότι ο χρόνος χρήσης των γαντιών είναι πολύ μικρότερος από αυτόν του χρόνου διείσδυσης.

Προστασία για τα μάτια:



Γυαλιά ασφαλείας με πλευρικά προστατευτικά (γυαλιά πλαισίου) (EN 166)

Προστασία για το σώμα:

Χρησιμοποιείτε προστατευτικά ενδύματα:

- Ανθεκτική ποδιά στα χημικά

- Ποδιά / μπότες από PVC ή νεοπρένιο

GR

(συνέχεια στη σελίδα 10)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφώνιο

(συνέχεια από τη σελίδα 9)

ΤΜΗΜΑ 9: Φυσικές και χημικές ιδιότητες

9.1 Στοιχεία για τις βασικές φυσικές και χημικές ιδιότητες

Γενικές πληροφορίες

Όψη:

Μορφή:	στερεό υλικό
Χρώμα:	κεχριμπαρένιο
Οσμή:	οσμή ρετσινιού
Όριο οσμής:	Μη καθορισμένο

Τιμή pH:	Μη χρησιμοποιήσιμο
Σημείο τήξεως/σημείο πήξεως:	66,5-93,4 °C
Αρχικό σημείο ζέσεως και περιοχή ζέσεως:	>360 °C

Σημείο ανάφλεξης:	Μη εύφλεκτο
-------------------	-------------

Αναφλεξιμότητα (στερεό/αέριο):	Το υλικό δεν αναφλέγεται.
--------------------------------	---------------------------

Θερμοκρασία αυτοανάφλεξης:	Μη καθορισμένη
----------------------------	----------------

Θερμοκρασία αποσύνθεσης:	Μη καθορισμένο
--------------------------	----------------

Εκρηκτικές ιδιότητες:	Δεν υφίσταται κίνδυνος εκρήξεως του προϊόντος.
-----------------------	--

Όρια κινδύνου εκρήξεως:

κατώτερα:	Μη καθορισμένο
ανώτερα:	Μη καθορισμένο

Οξειδωτικές ιδιότητες	Δεν ταξινομείται ως οξειδωτικό σύμφωνα με τον Κανονισμό CLP 1272/2008/EK.
-----------------------	---

Πίεση ατμού σε 25 °C	0,06 hPa
----------------------	----------

Πυκνότητα:	Μη καθορισμένη
Σχετική πυκνότητα	Μη καθορισμένο
Πυκνότητα ατμών	Μη χρησιμοποιήσιμο
Ταχύτητα εξάτμισης:	Μη χρησιμοποιήσιμο

Διαλυτότητα σε / αναμείξιμο με νερό σε 20 °C:	900 g/l αδιάλυτο
--	---------------------

Συντελεστής κατανομής: n-οκτανόλη/νερό:	Μη καθορισμένο
---	----------------

Ιξώδες

δυναμικό:	Μη χρησιμοποιήσιμο
κινηματικό:	Μη χρησιμοποιήσιμο

9.2 Άλλες πληροφορίες	Δεν διατίθενται άλλες σχετικές πληροφορίες.
-----------------------	---

ΤΜΗΜΑ 10: Σταθερότητα και αντιδραστικότητα

10.1 Αντιδραστικότητα Το προϊόν δεν αντιδρά υπό κανονικές συνθήκες.

10.2 Χημική σταθερότητα

Σταθερό υπό κανονικές συνθήκες.

(συνέχεια στη σελίδα 11)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφόνιο

(συνέχεια από τη σελίδα 10)

Το προϊόν είναι σταθερό εφόσον αποθηκεύεται και χειρίζεται όπως υποδεικνύεται.

Θερμική αποσύνθεση / Όροι που πρέπει να αποφεύγονται: Ευσταθές στη θερμοκρασία περιβάλλοντος.

10.3 Πιθανότητα επικίνδυνων αντιδράσεων Κίνδυνος εκρήξεως σκόνης.

10.4 Συνθήκες προς αποφυγή Αποφύγετε τα ηλεκτροστατικά φορτία.

10.5 Μη συμβατά υλικά:

Ισχυροί οξειδωτικοί παράγοντες.

Ισχυρά οξέα

Ισχυρές Βάσεις

10.6 Επικίνδυνα προϊόντα αποσύνθεσης: Δεν είναι γνωστά επικίνδυνα προϊόντα αποσυνθέσεως.

ΤΜΗΜΑ 11: Τοξικολογικές πληροφορίες

11.1 Πληροφορίες για τις τοξικολογικές επιπτώσεις

Οξεία τοξικότητα Βάσει των διαθέσιμων δεδομένων, τα κριτήρια ταξινόμησης δεν πληρούνται.

Εκτίμηση Οξείας Τοξικότητας -LD/LC50

CAS: 8050-09-7 κολοφόνιο

Από το στόμα LD50 >2.000 mg/kg (αρουραίος) (OECD Guideline 423)

Από το δέρμα LD50 >2.000 mg/kg (αρουραίος) (OECD Guideline 402)

Διάβρωση και ερεθισμός του δέρματος

Βάσει των διαθέσιμων δεδομένων, τα κριτήρια ταξινόμησης δεν πληρούνται.

Σοβαρή βλάβη/ερεθισμός των ματιών

Βάσει των διαθέσιμων δεδομένων, τα κριτήρια ταξινόμησης δεν πληρούνται.

Ευαισθητοποίηση του αναπνευστικού συστήματος ή του δέρματος

Μπορεί να προκαλέσει αλλεργική δερματική αντίδραση.

Ευαισθητοποίηση

Σε επαφή με το δέρμα μπορεί να προκαλέσει ευαισθητοποίηση.

Ύστερα από παρατεταμένη έκθεση μπορεί ερχόμενο σε επαφή με το δέρμα να προκαλέσει ευαισθητοποίηση.

Επιπτώσεις KMT (καρκινογένεση, μεταλλαξιγένεση και τοξικότητα για την αναπαραγωγή)

Μεταλλαξιγένεση γεννητικών κυττάρων

Βάσει των διαθέσιμων δεδομένων, τα κριτήρια ταξινόμησης δεν πληρούνται.

Καρκινογένεση Βάσει των διαθέσιμων δεδομένων, τα κριτήρια ταξινόμησης δεν πληρούνται.

Τοξικότητα για την αναπαραγωγή

Βάσει των διαθέσιμων δεδομένων, τα κριτήρια ταξινόμησης δεν πληρούνται.

STOT-εφάπαξ έκθεση Βάσει των διαθέσιμων δεδομένων, τα κριτήρια ταξινόμησης δεν πληρούνται.

STOT-επανελημμένη έκθεση Βάσει των διαθέσιμων δεδομένων, τα κριτήρια ταξινόμησης δεν πληρούνται.

Κίνδυνος από αναρρόφηση Βάσει των διαθέσιμων δεδομένων, τα κριτήρια ταξινόμησης δεν πληρούνται.

ΤΜΗΜΑ 12: Οικολογικές πληροφορίες

12.1 Τοξικότητα

Υδατική τοξικότητα: Δεν διατίθενται άλλες σχετικές πληροφορίες.

12.2 Ανθεκτικότητα και ικανότητα αποδόμησης Δεν διατίθενται άλλες σχετικές πληροφορίες.

12.3 Δυνατότητα βιοσυσσώρευσης Δεν διατίθενται άλλες σχετικές πληροφορίες.

12.4 Κινητικότητα στο έδαφος Δεν διατίθενται άλλες σχετικές πληροφορίες.

Περαιτέρω οικολογικές ενδείξεις:

Γενικές οδηγίες: Δεν είναι γνωστός κανένας κίνδυνος για το υδάτινο περιβάλλον.

12.5 Αποτελέσματα της αξιολόγησης ABT και αΑαB

ABT: Μη εφαρμόσιμο

αΑαB: Μη εφαρμόσιμο

(συνέχεια στη σελίδα 12)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφώνιο

(συνέχεια από τη σελίδα 11)

12.6 Άλλες αρνητικές επιπτώσεις Δεν διατίθενται άλλες σχετικές πληροφορίες.

ΤΜΗΜΑ 13: Στοιχεία σχετικά με τη διάθεση

13.1 Μέθοδοι διαχείρισης αποβλήτων

Σύσταση:



Η διάθεση του υλικού πρέπει να είναι σύμφωνη με την Εθνική Νομοθεσία.

Αποτεφρώστε σε συμμόρφωση με τους τοπικούς κανονισμούς



Δεν επιτρέπεται να εναποτεθεί μαζί με τα κοινά απορρίμματα. Μην το αδειάζετε στην αποχέτευση.

Για ανακύκλωση απευθυνθείτε στον παραγωγό.

Ακάθαρτες συσκευασίες:

Σύσταση: Τα μη μολυσμένα περιβλήματα μπορούν να επαναχρησιμοποιηθούν.

Συνιστάται ως μέσον καθαρίσματος:

Οι περιέκτες που δεν μπορούν να καθαριστούν πρέπει να απορρίπτονται κατά τον ίδιο τρόπο όπως το περιεχόμενο.

ΤΜΗΜΑ 14: Πληροφορίες σχετικά με τη μεταφορά

14.1 Αριθμός ΟΗΕ

ADR, ADN, IMDG, IATA

εκπίπτει

14.2 Οικεία ονομασία αποστολής ΟΗΕ

ADR, ADN, IMDG, IATA

εκπίπτει

14.3 Τάξης/-εις κινδύνου κατά τη μεταφορά

ADR, ADN, IMDG, IATA

Κλάση

εκπίπτει

14.4 Ομάδα συσκευασίας

ADR, IMDG, IATA

εκπίπτει

14.5 Περιβαλλοντικοί κίνδυνοι

Μη εφαρμόσιμο

14.6 Ειδικές προφυλάξεις για τον χρήστη

Μη χρησιμοποιήσιμο

14.7 Χύδην μεταφορά σύμφωνα με το παράρτημα II

της σύμβασης MARPOL και τον κώδικα IBC

Μη χρησιμοποιήσιμο

UN "Model Regulation":

εκπίπτει

ΤΜΗΜΑ 15: Στοιχεία νομοθετικού χαρακτήρα

15.1 Κανονισμοί/νομοθεσία σχετικά με την ασφάλεια, την υγεία και το περιβάλλον για την ουσία ή το μείγμα

Κανονισμός (ΕΕ) 2015/830

Κανονισμός CLP 1272/2008/EK

Κανονισμός REACH 1907/2006/EK

Οδηγία 98/24/EK του Συμβουλίου της 7ης Απριλίου 1998 για την Προστασία της Υγείας και Ασφάλειας των Εργαζομένων κατά την Εργασία από Κινδύνους Οφειλόμενους σε Χημικούς Παράγοντες

(συνέχεια στη σελίδα 13)

Ημερομηνία εκτύπωσης 10.02.2020

Αριθμός έκδοσης 1

Αναθεώρηση 10.02.2020

Όνομασία του προϊόντος στο εμπόριο: κολοφώνιο

(συνέχεια από τη σελίδα 12)

Οδηγία 94/33/EK για την προστασία των νέων κατά την εργασία, όπως έχει τροποποιηθεί και ισχύει.
Οδηγία 92/85/ΕΟΚ σχετικά με την εφαρμογή μέτρων που αποβλέπουν στη βελτίωση της υγείας και της ασφάλειας κατά την εργασία των εγκύων, λεχόνων και γαλουχουσων εργαζομένων, όπως έχει τροποποιηθεί και ισχύει.

Οδηγία 2012/18 / ΕΕ

Κατονομαζόμενες επικίνδυνες ουσίες - ΠΑΡΑΡΤΗΜΑ Ι

Κανένα από τα συστατικά στοιχεία δεν περιέχεται στη λίστα.

Η ουσία δεν περιλαμβάνεται στο Παράρτημα Ι.

Εθνικές διατάξεις

Άλλες διατάξεις, περιορισμοί και απαγορεύσεις

Ουσίες που προκαλούν πολύ μεγάλη ανησυχία (SVHC) σύμφωνα με το REACH, άρθρο 57

Δεν ανήκει στις ουσίες που προκαλούν πολύ μεγάλη ανησυχία (SVHC).

15.2 Αξιολόγηση χημικής ασφάλειας:

Η αξιολόγηση χημικής ασφάλειας πραγματοποιήθηκε.

ΤΜΗΜΑ 16: Άλλες πληροφορίες

Αυτές οι δηλώσεις βασίζονται στο σημερινό επίπεδο των γνώσεών μας, δεν αποτελούν εγγύηση για τις ιδιότητες των προϊόντων ούτε αιτιολογούν νομικές συνέπειες.

Υποδείξεις εκπαίδευσης

Κατάλληλη εκπαίδευση για την ασφάλεια και τον χειρισμό θα πρέπει να παρέχεται σε όλους τους εργαζόμενους σύμφωνα με τις υπάρχουσες πληροφορίες.

Δελτίο Δεδομένων Ασφαλείας, συντάχτηκε από:



SUSTCHEM A.E.

Τμήμα REACH & Χημικών Υπηρεσιών

A: 3ης Σεπτεμβρίου 144 | 112 51, Αθήνα

T: +30 210 8252510 | F: +30 210 8252575

W: www.sustchem.gr | E: info@suschem.gr

Συντμήσεις και αρκτικόλεξα:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Skin Sens. 1: Ευαισθητοποίηση του δέρματος – Κατηγορία 1

1 Environmental exposure assessment

1.1 Manufacture

1. Manufacture of Rosin, hydrogenated rosin and their salts	
Free short title	Manufacture
Sector(s) of Use	Industrial (SU3, SU8, SU9)
Environmental Release Categories	ERC 1
Specific Environmental Release Category	ESVOC SpERC 1.1.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 128500 tonnes / year Regional tonnage: 12900 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 300	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fraction to soil taken from ESVOC SpERC for Manufacture 1.1v1 Release fraction to air from process (after RMM): 4.2E-05 (release fraction to give RCR <1) Release fraction to wastewater from process (before STP): 8.9E-08 (release fraction to give RCR <1) Release fraction to soil from process: 1E-04	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water goes to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients. Sludge assumed not to be spread to agricultural land.	
Conditions and measures related to external treatment of waste for disposal	

External treatment and disposal of waste should comply with applicable local and / or national regulations.						
Conditions and measures related to external recovery of waste						
External recovery and recycling of waste should comply with applicable local and/or national regulations.						
3. Exposure estimation and reference to its source						
Environmental emissions						
Environmental modelling was carried out in EUSES 2.1.1						
Local PEC						
Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
4.14E-04	1.38E-05	1.37E-06	1.53E-03	1.52E-04	3.92E-04	1.29E-04
Local RCRs						
Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	8.51E-03	8.46E-03	0.993	0.987	0.987	1.27E-07
MSafe: 43566 kg/day						
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES						
Environmental emissions						
<p>The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.</p> <p> PNEC_{freshwater}: 1.6E-03 mg/L PNEC_{marine}: 1.6E-04 mg/L PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww PNEC_{sediment marine}: 1.52E-04 mg/kg ww PNEC_{soil}: 3.97E-04 mg/kg ww PNEC_{STP}: 1000 mg/L </p> <p>A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.</p>						

1.2 Distribution

1. Distribution of Rosin, hydrogenated rosin and their salts	
Free short title	Distribution
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 1 – 7
Specific Environmental Release Category	ESVOC SpERC 1.1b.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 19300 tonnes / year Regional tonnage: 1930 tonnes / year Fraction of main local source: 0.002 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 300	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Distribution 1.1b.v1 Release fraction to air from process (after RMM): 1E-05 Release fraction to wastewater from process (before STP): 1E-05 Release fraction to soil from process: 1E-05	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water goes to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients. Sludge assumed not to be spread to agricultural land.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.11E-06	1.39E-06	1.31E-07	1.54E-04	1.45E-05	3.31E-06	4.3E-06

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	8.69E-04	8.17E-04	0.101	0.0953	8.35E-03	4.3E-09

MSafe: 127.39 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.3 Use as an intermediate

1. Use as an intermediate of Rosin, hydrogenated rosin and their salts	
Free short title	Use as an intermediate
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 6a
Specific Environmental Release Category	ESVOC SpERC 6.1a.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 83500 tonnes / year Regional tonnage: 8350 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 300	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions to air and soil taken from ESVOC SpERC Use as an intermediate 6.1a.v1 Release fraction to air from process (after RMM): 2 E-05 Release fraction to wastewater from process (before STP): 1.3 E-07 (release fraction to give RCR <1) Release fraction to soil from process: 1E-03	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water goes to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients. Sludge assumed not to be spread to agricultural land.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
1.3E-04	1.3E-05	1.29E-06	1.44E-03	1.43E-04	1.24E-04	1.21E-04

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	8.11E-03	8.06E-03	0.946	0.94	0.312	1.21E-07

MSafe: 29422.13 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.4 Formulation

1. Formulation of Rosin, hydrogenated rosin and their salts	
Free short title	Formulation
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 2
Specific Environmental Release Category	ESVOC SpERC 2.2.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 54000 tonnes / year Regional tonnage: 5400 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 220	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fraction to soil taken from ESVOC SpERC for Formulation 2.2.v1 Release fraction to air from process (after RMM): 1E-04 (release fraction to give RCR <1) Release fraction to wastewater from process (before STP): 1.57E-07 (release fraction to give RCR <1) Release fraction to soil from process: 1E-04	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water goes to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients. Sludge assumed not to be spread to agricultural land.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
4.14E-04	1.03E-05	1.03E-06	1.15E-03	1.14E-04	3.92E-04	9.45E-05

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.46E-03	6.41E-03	0.754	0.748	0.987	9.45E-08

MSafe: 24868.75 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.5 Use in coatings (Industrial)

1. Use in coatings (Industrial) of Rosin, hydrogenated rosin and their salts	
Free short title	Use in coatings (Industrial)
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 5
Specific Environmental Release Category	FEICA SPERCs 5.1a.v1, 5.1b.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 6000tonnes / year Regional tonnage: 600 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 220	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions to water and soil taken from FEICA SPERCs for Industrial use 5.1a.v1, 5.1b.v1 Release fraction to air from process (after RMM): 9E-04 Release fraction to wastewater from process (before STP): 0 Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water goes to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients. Sludge assumed not to be spread to agricultural land.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
4.14E-04	9.63E-07	8.81E-08	1.07E-04	9.77E-06	3.92E-04	0

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.02E-04	5.5E-04	0.0703	0.0642	0.987	0

MSafe: 2763.19 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.6 Use in coatings (Professional)

1. Use in coatings (Professional) of Rosin, hydrogenated rosin and their salts	
Free short title	Use in coatings (Professional)
Sector(s) of Use	Professional (SU22)
Environmental Release Categories	ERC 8c, ERC 8f
Specific Environmental Release Category	FEICA SPERCs 8c.1a.v1, 8f.1.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 4000 tonnes / year Regional tonnage: 400 tonnes / year Fraction of main local source: 0.002 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions for air and soil taken from FEICA SPERCs for Wide Dispersive Use 8c.2a.v1, 8f.2.v1 Release fraction to air from process (after RMM): 0 Release fraction to wastewater from process (before STP): 1.1E-04 (release fraction to give RCR <1) Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable local and/or national regulations.	

3. Exposure estimation and reference to its source						
Environmental emissions						
Environmental modelling was carried out in EUSES 2.1.1						
Local PEC						
Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.09E-06	1.76E-06	1.28E-06	1.96E-04	1.42E-04	1.37E-04	8.06E-06
Local RCRs						
Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	1.1E-03	8.02E-03	0.129	0.936	0.436	8.06E-09
MSafe: 2.342 kg/day						
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES						
Environmental emissions						
<p>The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.</p> <p> PNEC_{freshwater}: 1.6E-03 mg/L PNEC_{marine}: 1.6E-04 mg/L PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww PNEC_{sediment marine}: 1.52E-04 mg/kg ww PNEC_{soil}: 3.97E-04 mg/kg ww PNEC_{STP}: 1000 mg/L </p> <p>A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.</p>						

9.1.7 Use in coatings (Consumer)

1. Use in coatings (Consumer) of Rosin, hydrogenated rosin and their salts	
Free short title	Use in coatings (Consumer)
Sector(s) of Use	Consumer (SU21)
Environmental Release Categories	ERC 8c, ERC 8f
Specific Environmental Release Category	FEICA SPERC 8c.2a.v1, 8f.2.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 4000 tonnes / year Regional tonnage: 400 tonnes / year Fraction of main local source: 0.002 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions for air and soil taken from FEICA SPERCs for Wide Dispersive Use 8c.2a.v1, 8f.2.v1 Release fraction to air from process (after RMM): 0 Release fraction to wastewater from process (before STP): 1.1E-04 (release fraction to give RCR <1) Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable local and/or national regulations.	

3. Exposure estimation and reference to its source						
Environmental emissions						
Environmental modelling was carried out in EUSES 2.1.1						
Local PEC						
Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.09E-06	1.76E-06	1.28E-06	1.96E-04	1.42E-04	1.37E-04	1.06E-06
Local RCRs						
Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	1.1E-03	8.02E-03	0.129	0.936	0.436	8.06E-09
MSafe: 2.342 kg/day						
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES						
Environmental emissions						
The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.						
PNEC _{freshwater} : 1.6E-03 mg/L PNEC _{marine} : 1.6E-04 mg/L PNEC _{sediment freshwater} : 1.52E-03 mg/kg ww PNEC _{sediment marine} : 1.52E-04 mg/kg ww PNEC _{soil} : 3.97E-04 mg/kg ww PNEC _{STP} : 1000 mg/L						
A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.						

1.8 Use in agrochemicals (Consumer)

1. Use in agrochemicals of Rosin, hydrogenated rosin and their salts	
Free short title	Use in agrochemicals (Consumer)
Sector(s) of Use	Consumer (SU21)
Environmental Release Categories	ERC 8a, ERC 8d
Specific Environmental Release Category	ESVOC SpERC 8.11b.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 75 tonnes / year Regional tonnage: 7.5 tonnes / year Fraction of main local source: 0.002 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions to air and soil taken from ESVOC SpERC for Agrochemical uses (Professional) 8.11a.v1 Release fraction to air from process (after RMM): 0.9 Release fraction to wastewater from process (before STP): 6 E-03 (release fraction to give RCR <1) Release fraction to soil from process: 0.09	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable local and/or national regulations.	

3. Exposure estimation and reference to its source						
Environmental emissions						
Environmental modelling was carried out in EUSES 2.1.1						
Local PEC						
Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
1.34E-05	1.78E-06	1.31E-06	1.98E-04	1.46E-04	1.5E-04	8.25E-06
Local RCRs						
Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	1.11E-03	8.2E-03	0.13	0.957	0.471	8.25E-09
MSafe: 0.0429 kg/day						
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES						
Environmental emissions						
The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.						
PNEC _{freshwater} : 1.6E-03 mg/L PNEC _{marine} : 1.6E-04 mg/L PNEC _{sediment freshwater} : 1.52E-03 mg/kg ww PNEC _{sediment marine} : 1.52E-04 mg/kg ww PNEC _{soil} : 3.97E-04 mg/kg ww PNEC _{STP} : 1000 mg/L						
A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.						

1.9 Use in laboratories (Industrial)

1. Use in laboratories of Rosin, hydrogenated rosin and their salts	
Free short title	Use in laboratories (Industrial)
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 2, ERC 4
Specific Environmental Release Category	ESVOC SPERC 4.24.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 0.0103 tonnes / year Regional tonnage: 0.00103 tonnes / year Fraction of main local source: 0.1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 20	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SPERC for Laboratory reagents (Industrial) 4.24.v1 Release fraction to air from process (after RMM): 0.025 Release fraction to wastewater from process (before STP): 0.02 Release fraction to soil from process: 1E-04	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable local and/or national regulations.	

3. Exposure estimation and reference to its source						
Environmental emissions						
Environmental modelling was carried out in EUSES 2.1.1						
Local PEC						
Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.08E-06	1.3E-06	5.98E-07	1.45E-04	6.64E-05	6.05E-05	3.44E-06
Local RCRs						
Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	8.15E-04	3.74E-03	0.0951	0.436	0.191	3.44E-09
MSafe: 0.0118 kg/day						
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES						
Environmental emissions						
<p>The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.</p> <p> PNEC_{freshwater}: 1.6E-03 mg/L PNEC_{marine}: 1.6E-04 mg/L PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww PNEC_{sediment marine}: 1.52E-04 mg/kg ww PNEC_{soil}: 3.97E-04 mg/kg ww PNEC_{STP}: 1000 mg/L </p> <p>A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.</p>						

9.1.10 Use in polymer production (Industrial)

1. Use in polymer production of Rosin, hydrogenated rosin and their salts	
Free short title	Use in polymer production (Industrial)
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 4
Specific Environmental Release Category	ESVOC SpERC 4.20.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 120 tonnes / year Regional tonnage: 12 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 300	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions to air and soil taken from ESVOC SpERC for Polymer production 4.20.v1 Release fraction to air from process (after RMM): 2E-03 Release fraction to wastewater from process (before STP): 9.5E-05 (release fraction to give RCR <1) Release fraction to soil from process: 1E-04	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water goes to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients. Sludge assumed not to be spread to agricultural land.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
2.14E-05	1.36E-05	1.35E-06	1.51E-03	1.5E-04	2.08E-05	1.28E-04

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	8.52E-03	8.46E-03	0.994	0.988	0.0523	1.28E-07

MSafe: 40.24 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.11 Use in polymer processing (Industrial)

1. Use in polymer processing of Rosin, hydrogenated rosin and their salts	
Free short title	Use in polymer processing (Industrial)
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 4
Specific Environmental Release Category	ESVOC SpERC 4.21a.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282 mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 120 tonnes / year Regional tonnage: 12 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 300	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Polymer processing (Industrial) 4.21a.v1 Release fraction to air from process (after RMM): 0.02 Release fraction to wastewater from process (before STP): 0 Release fraction to soil from process: 1E-05	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable local and/or national regulations.	

3. Exposure estimation and reference to its source						
Environmental emissions						
Environmental modelling was carried out in EUSES 2.1.1						
Local PEC						
Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
1.86E-04	9.63E-07	8.81E-08	1.07E-04	9.77E-06	1.77E-04	0
Local RCRs						
Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.02E-04	5.5E-04	0.0703	0.0642	0.445	0
MSafe: 89.89 kg/day						
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES						
Environmental emissions						
The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.						
PNEC _{freshwater} : 1.6E-03 mg/L PNEC _{marine} : 1.6E-04 mg/L PNEC _{sediment freshwater} : 1.52E-03 mg/kg ww PNEC _{sediment marine} : 1.52E-04 mg/kg ww PNEC _{soil} : 3.97E-04 mg/kg ww PNEC _{STP} : 1000 mg/L						
A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.						

1.12 Use in polymer processing (Professional)

1. Use in polymer processing of Rosin, hydrogenated rosin and their salts	
Free short title	Use in polymer processing (Professional)
Sector(s) of Use	Professional (SU22)
Environmental Release Categories	ERC 8a
Specific Environmental Release Category	ESVOC SpERC 8.21b.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 120 tonnes / year Regional tonnage: 12 tonnes / year Fraction of main local source: 0.0005 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Polymer processing (Professional) 8.21b.v1 Release fraction to air from process (after RMM): 0.98 Release fraction to wastewater from process (before STP): 0.01 Release fraction to soil from process: 0.01	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
7.57E-06	1.51E-06	9.07E-07	1.68E-04	1.01E-04	9.93E-05	5.52E-06

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	9.44E-04	5.67E-03	0.11	0.661	0.312	5.52E-09

MSafe: 0.0248 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.13 Use in rubber production (Industrial)

1. Use in rubber production of Rosin, hydrogenated rosin and their salts	
Free short title	Use in rubber production (Industrial)
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 4
Specific Environmental Release Category	ESVOC SpERC 4.19.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 400 tonnes / year Regional tonnage: 40 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 300	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions to air and soil taken from ESVOC for Rubber production SpERC 4.19.v1 Release fraction to air from process (after RMM): 0.01 Release fraction to wastewater from process (before STP): 2.8E-05 (release fraction to give RCR <1) Release fraction to soil from process: 1E-04	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water goes to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients. Sludge assumed not to be spread to agricultural land.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.07E-04	1.33E-05	1.33E-06	1.48E-03	1.47E-04	2.91E-04	1.25E-04

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	8.34E-03	8.29E-03	0.973	0.967	0.733	1.25E-07

MSafe: 137.03 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.14 Use in cleaning products (Industrial)

1. Use in cleaning products of Rosin, hydrogenated rosin and their salts	
Free short title	Use in cleaning products (Industrial)
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 4
Specific Environmental Release Category	AISE SPERC 4.1.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 0.00514 tonnes / year Regional tonnage: 0.000514 tonnes / year Fraction of main local source: 0.1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 220	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from AISE SPERC for Industrial use 4.1.v1 Release fraction to air from process (after RMM): 0 Release fraction to wastewater from process (before STP): 1 Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.08E-06	1.74E-06	1.25E-06	1.93E-04	1.38E-04	1.33E-04	7.81E-06

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	1.09E-03	7.8E-03	0.127	0.91	0.423	7.81E-09

MSafe: 0.000257 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.15 Use in cleaning products (Professional)

1. Use in cleaning products of Rosin, hydrogenated rosin and their salts	
Free short title	Use in cleaning products (Professional)
Sector(s) of Use	Professional (SU22)
Environmental Release Categories	ERC 8a
Specific Environmental Release Category	AISE SPERCs 8a.1.a.v1, 8a.1.c.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.00075 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from AISE SPERCs for Wide dispersive use Release fraction to air from process (after RMM): 1 (AISE SPERC 8a.1.c.v1) Release fraction to wastewater from process (before STP): 1 (AISE SPERC 8a.1.a.v1) Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.13E-06	1.65E-06	1.11E-06	1.83E-04	1.23E-04	1.18E-04	6.89E-06

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	1.03E-03	6.94E-03	0.12	0.809	0.374	6.89E-09

MSafe: 0.000254 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.16 Use in cleaning products (Consumer)

1. Use in cleaning products of Rosin, hydrogenated rosin and their salts	
Free short title	Use in cleaning products (Consumer)
Sector(s) of Use	Consumer (SU21)
Environmental Release Categories	ERC 8a
Specific Environmental Release Category	AISE SPERC 8a.1.a.v1, 8a.1.c.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.00075 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from AISE SPERCs for Wide dispersive use Release fraction to air from process (after RMM): 1 (AISE SPERC 8a.1.c.v1) Release fraction to wastewater from process (before STP): 1 (AISE SPERC 8a.1.a.v1) Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.13E-06	1.65E-06	1.11E-06	1.83E-04	1.23E-04	1.18E-04	6.89E-06

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	1.03E-03	6.94E-03	0.12	0.809	0.374	6.89E-09

MSafe: 000254 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.17 Use in binders and release agents (Industrial)

1. Use in binders and release agents of Rosin, hydrogenated rosin and their salts	
Free short title	Use in binders and release agents (Industrial)
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 4
Specific Environmental Release Category	ESVOC SpERC 4.10a.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 100	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Binders and release agents (Industrial) 4.10a.v1 Release fraction to air from process (after RMM): 0.2 Release fraction to wastewater from process (before STP): 3E-06 Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
1.83E-05	9.73E-07	1.03E-07	1.08E-04	1.14E-05	1.94E-05	1.01E-07

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.08E-04	6.44E-04	0.071	0.0751	0.05	1.01E-10

MSafe: 13.32 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.18 Use in binders and release agents (Professional)

1. Use in binders and release agents of Rosin, hydrogenated rosin and their salts	
Free short title	Use in binders and release agents (Professional)
Sector(s) of Use	Professional (SU22)
Environmental Release Categories	ERC 8a, ERC 8d
Specific Environmental Release Category	ESVOC SpERC 8.10b.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.0005 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Binders and release agents (Professional) 8.10b.v1 Release fraction to air from process (after RMM): 0.95 Release fraction to wastewater from process (before STP): 0.025 Release fraction to soil from process: 0.025	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.11E-06	9.75E-07	1.05E-07	1.08E-04	1.17E-05	5.23E-06	1.15E-07

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.09E-04	6.57E-04	0.0711	0.0766	0.0144	1.15E-10

MSafe: 0.00178 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.19 Use as a fuel (Industrial)

1. Use as a fuel of Rosin, hydrogenated rosin and their salts	
Free short title	Use as a fuel (Industrial)
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 7
Specific Environmental Release Category	ESVOC SpERC 7.12a.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 300	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Use as a fuel (Industrial) 7.12a.v1 Release fraction to air from process (after RMM): 2.5E-04 Release fraction to wastewater from process (before STP): 1E-05 Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.09E-06	9.75E-07	1.05E-07	1.08E-04	1.16E-05	5.16E-06	1.12E-07

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.09E-04	6.54E-04	0.0711	0.0763	0.0142	1.12E-10

MSafe: 4.369 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.20 Use as a fuel (Professional)

1. Use as a fuel of Rosin, hydrogenated rosin and their salts	
Free short title	Use as a fuel (Professional)
Sector(s) of Use	Professional (SU22)
Environmental Release Categories	ERC 9a, ERC 9b
Specific Environmental Release Category	ESVOC SpERC 9.12b.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.0005 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC Use as a fuel (Professional) 9.12b.v1 Release fraction to air from process (after RMM): 1E-04 Release fraction to wastewater from process (before STP): 1E-05 Release fraction to soil from process: 1E-05	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.08E-06	9.63E-07	8.81E-08	1.07E-04	9.77E-06	3.28E-06	4.59E-11

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.02E-04	5.5E-04	0.0703	0.0642	8.27E-03	4.59E-14

MSafe: 0.00195 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.21 Use as a fuel (Consumer)

1. Use in as a fuel of Rosin, hydrogenated rosin and their salts	
Free short title	Use as a fuel (Consumer)
Sector(s) of Use	Consumer (SU21)
Environmental Release Categories	ERC 9a, ERC 9b
Specific Environmental Release Category	ESVOC SpERC 9.12c.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.0005 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Use as a fuel (Consumer) 9.12c.v1 Release fraction to air from process (after RMM): 1E-04 Release fraction to wastewater from process (before STP): 1E-05 Release fraction to soil from process: 1E-05	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.08E-06	9.63E-07	8.81E-08	1.07E-04	9.78E-06	3.28E-06	4.59E-11

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.02E-04	5.51E-04	0.0702	0.0642	8.26E-03	4.59E-14

MSafe: 0.00195kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.22 Use in roads and construction (Professional)

1. Use in roads and construction of Rosin, hydrogenated rosin and their salts	
Free short title	Use in roads and construction (Professional)
Sector(s) of Use	Professional (SU22)
Environmental Release Categories	ERC 8d, ERC 8f
Specific Environmental Release Category	ESVOC SpERC 8.15.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.0005 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Road and construction applications 8.15.v1 Release fraction to air from process (after RMM): 0.95 Release fraction to wastewater from process (before STP): 0.01 Release fraction to soil from process: 0.04	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.12E-06	9.68E-07	9.49E-08	1.07E-04	1.05E-05	4.08E-06	4.59E-08

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.05E-04	5.93E-04	0.0706	0.0692	0.0108	4.59E-11

MSafe: 0.000194 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.23 Other consumer uses

1. Other consumer uses of Rosin, hydrogenated rosin and their salts	
Free short title	Other consumer uses
Sector(s) of Use	Consumer (SU21)
Environmental Release Categories	ERC 8a, ERC 8d
Specific Environmental Release Category	ESVOC SpERC 8.16.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.0005 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Other consumer uses 8.16.v1 Release fraction to air from process (after RMM): 0.95 Release fraction to wastewater from process (before STP): 0.025 Release fraction to soil from process: 0.025	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.12E-06	9.74E-07	1.05E-07	1.08E-04	1.17E-05	5.22E-06	1.15E-07

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.09E-04	6.57E-04	0.0711	0.0767	0.0144	1.15E-10

MSafe: 0.00179 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.24 Use in laboratories (Professional)

1. Use in laboratories of Rosin, hydrogenated rosin and their salts	
Free short title	Use in laboratories (Professional)
Sector(s) of Use	Professional (SU22)
Environmental Release Categories	ERC 8a
Specific Environmental Release Category	ESVOC SpERC 8.17.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.0005 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Use in laboratories (Professional) 8.17.v1 Release fraction to air from process (after RMM): 0.5 Release fraction to wastewater from process (before STP): 0.5 Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3. 1E-06	1.19E-06	4.29E-07	1.32E-04	4.76E-05	4.15E-05	2.3E-06

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	7.44E-04	2.68E-03	0.0868	0.313	0.13	2.3E-09

MSafe: 0.00044 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.26 Use in lubricants (Consumer)

1. Use in lubricants of Rosin, hydrogenated rosin and their salts	
Free short title	Use in lubricants (Consumer)
Sector(s) of Use	Consumer (SU21)
Environmental Release Categories	8a, 8d
Specific Environmental Release Category	ESVOC SpERC 8.6e.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.005 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from ESVOC SpERC for Lubricants (Consumer) 8.6e.v1 Release fraction to air from process (after RMM): 0.015 Release fraction to wastewater from process (before STP): 0.05 Release fraction to soil from process: 0.05	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	

External recovery and recycling of waste should comply with applicable local and/or national regulations.

3. Exposure estimation and reference to its source

Environmental emissions

Environmental modelling was carried out in EUSES 2.1.1

Local PEC

Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.08E-06	9.86E-07	1.22E-07	1.09E-04	1.36E-05	7.1E-06	2.3E-07

Local RCRs

Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.16E-04	7.64E-04	0.0719	0.0891	0.0205	2.3E-10

MSafe: 0.00154 kg/day

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environmental emissions

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.

PNEC_{freshwater}: 1.6E-03 mg/L

PNEC_{marine}: 1.6E-04 mg/L

PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww

PNEC_{sediment marine}: 1.52E-04 mg/kg ww

PNEC_{soil}: 3.97E-04 mg/kg ww

PNEC_{STP}: 1000 mg/L

A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.

1.27 Use in agrochemicals (Professional)

1. Use in agrochemicals of Rosin, hydrogenated rosin and their salts	
Free short title	Use in agrochemicals (Professional)
Sector(s) of Use	Professional (SU22)
Environmental Release Categories	ERC 8a, ERC 8d
Specific Environmental Release Category	ESVOC SpERC 8.11a.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 0.002 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 365	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release taken from ESVOC SpERC for Agrochemical uses (Professional) 8.11a.v1 Release fraction to air from process (after RMM): 0.9 Release fraction to wastewater from process (before STP): 0.01 Release fraction to soil from process: 0.09	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable local and/or national regulations.	

3. Exposure estimation and reference to its source						
Environmental emissions						
Environmental modelling was carried out in EUSES 2.1.1						
Local PEC						
Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.22E-06	9.81E-07	1.15E-07	1.09E-04	1.28E-05	6.47E-06	1.84E-07
Local RCRs						
Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.13E-04	7.21E-04	0.0716	0.0841	0.0183	1.84E-10
MSafe: 0.00652 kg/day						
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES						
Environmental emissions						
<p>The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.</p> <p> PNEC_{freshwater}: 1.6E-03 mg/L PNEC_{marine}: 1.6E-04 mg/L PNEC_{sediment freshwater}: 1.52E-03 mg/kg ww PNEC_{sediment marine}: 1.52E-04 mg/kg ww PNEC_{soil}: 3.97E-04 mg/kg ww PNEC_{STP}: 1000 mg/L </p> <p>A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.</p>						

1.28 Use in paper and board production (Industrial)

1. Use in paper and board production of Rosin, hydrogenated rosin and their salts	
Free short title	Paper and board production (Industrial)
Sector(s) of Use	Industrial (SU3)
Environmental Release Categories	ERC 5
Specific Environmental Release Category	FEICA SPERC 5.1a.v1
2.2 Control of environmental exposure	
Assessment Method	
Environmental exposure: EUSES 2.1.1	
Product characteristics	
Water solubility: 30.4 mg/L (median value for category) Vapour pressure: 0.282mbar (median value for category) log Kow: 4.45 (median value for category) Readily biodegradable	
Amounts used	
EU tonnage: 1 tonnes / year Regional tonnage: 0.1 tonnes / year Fraction of main local source: 1 The exposure assessment has been conducted on a Category basis. Tonnages therefore cover both 2010 and 2013 substances within the category	
Frequency and duration of use	
Emission days per year: 220	
Environment factors not influenced by risk management	
Local freshwater dilution factor: 10 Local marine dilution factor: 100	
Other given operational conditions affecting environmental exposure	
Release fractions taken from FEICA SPERC 5.1a.v1 Release fraction to air from process (after RMM): 0.009 Release fraction to wastewater from process (before STP): 0 Release fraction to soil from process: 0	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used	
Organizational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from wastewater	
Conditions and measures related to municipal sewage treatment plant	
Assumed waste water goes to sewage treatment works in local freshwater assessment. Assumed waste water does not go to sewage treatment works in local marine assessment. EUSES default STP with primary settler with effluent discharge rate 2000000 L/d, serving 10000 inhabitants. 28.1% to sludge, 6.69% to water calculated in EUSES based on partition coefficients.	
Conditions and measures related to external treatment of waste for disposal	
External treatment and disposal of waste should comply with applicable local and / or national regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable local and/or national regulations.	

3. Exposure estimation and reference to its source						
Environmental emissions						
Environmental modelling was carried out in EUSES 2.1.1						
Local PEC						
Air mg/m ⁻³	Fresh water mg/L	Marine water mg/L	Sediment freshwater mg/kg ww	Sediment marine water mg/kg ww	Soil mg/kg ww	STP mg/L
3.77E-06	9.63E-07	8.81E-08	1.07E-04	9.78E-06	3.93E-06	0
Local RCRs						
Air	Fresh water	Marine water	Sediment freshwater	Sediment marine water	Soil	STP
NA	6.02E-04	5.15E-04	0.0702	0.0642	9.9E-03	0
MSafe: 6.475 kg/day						
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES						
Environmental emissions						
The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This can be shown by scaling or by showing that they limit the environmental exposure to a level below the respective PNEC as given below.						
PNEC _{freshwater} : 1.6E-03 mg/L						
PNEC _{marine} : 1.6E-04 mg/L						
PNEC _{sediment freshwater} : 1.52E-03 mg/kg ww						
PNEC _{sediment marine} : 1.52E-04 mg/kg ww						
PNEC _{soil} : 3.97E-04 mg/kg ww						
PNEC _{STP} : 1000 mg/L						
A single category PNEC has been derived for each environmental compartment and this has been used in the exposure assessment. The worst case PNEC for each compartment has been used in order to cover all category members.						